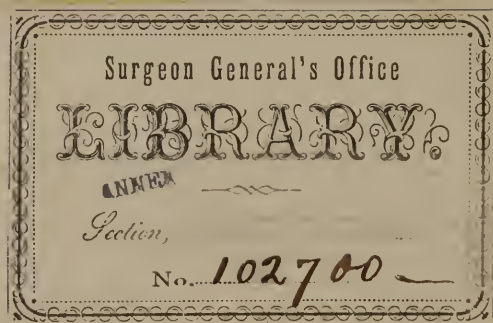


WM
C8761
1876

INSANITY
IN ITS
MEDICO-LEGAL RELATIONS.
COWPERTHWAIT.



NLM 00558309 0



100

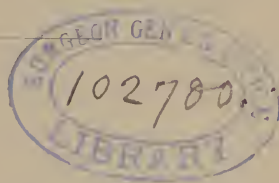
INSANITY

IN ITS

MEDICO-LEGAL RELATIONS.

✓ BY

A. C. COWPERTHWAIT, A. M., M. D.



Philadelphia :

J. M. STODDART & CO.

No. 723 CHESTNUT ST.,

1876.

WM
C876i
1876

Entered according to Act of Congress, in the year 1876, by

A. C. COWPERTHWAIT,

in the Office of the Librarian of Congress, at Washington.

CONTENTS.

CHAPTER I.

	PAGE.
INTRODUCTION,	I

CHAPTER II.

PATHOLOGY,	6
----------------------	---

CHAPTER III.

CLASSIFICATION,	16
---------------------------	----

CHAPTER IV.

DIAGNOSIS,	29
----------------------	----

CHAPTER V.

CRIMINAL RESPONSIBILITY OF THE INSANE,	36
--	----

CHAPTER VI.

EPILEPTIC INSANITY,	61
-------------------------------	----

CHAPTER VII.

TREATMENT OF THE INSANE,	70
------------------------------------	----

PREFACE.

IN presenting these pages to the public, the author does not flatter himself by thinking that he is bringing forward any strikingly new or original ideas in regard to insanity; on the contrary, he has endeavored to incorporate, in as little space as possible, the ideas and observations of those who have already become eminent as alienist physicians, with a somewhat extended experience of his own, and thus to produce a work, which, while it may be very brief, will contain those essential facts relating to the pathology and diagnosis, and the legal relations of insanity, which should be familiar to every physician, and the knowledge of which is of absolute necessity to him when called upon to testify in courts of justice.

The remarkable prevalence of mental diseases in late years, and the growing tendency thereto, especially in our own country, together with the enormity of crimes which are being constantly laid at its door, make it a matter of paramount importance, that every physician should be thoroughly posted in regard to insanity in all its relations, legal as well as medical.

In all cases, the liberty of the individual suspected of insanity, depends upon the diagnosis of the physician; how important the trust, how great the responsibility therefore, when we take into consideration the impending misery or happiness of all concerned. Yet this trust falls into comparative insignificance by the side of that which devolves upon the physician, when his word is to decide the life or death of the unfortunate criminal. How necessary, then, a

thorough knowledge of the whole of mental pathology, and how greatly to be regretted, is the wide spread professional apathy and ignorance concerning it.

In the language of a recent writer: "Were the vast array of incipient lunatics, who mingle unrecognized among our large population, to be suddenly discovered, the shock upon the community would be profound. Nevertheless, it would be wholesome. If the world clearly understood how much of the eccentricity and the moral perversity manifested by individuals was to be ascribed to a positive derangement of the material instrument of thought, and how much to a purely capricious and depraved will, its judgments, in courts of law and at the tribunal of society, would be more just and charitable."

There is no question now before the public, involving more broad and serious consequences than that of the comparative sanity and moral responsibility of criminals and wrong-doers. In every case of erring or singular action, the inquiry into the motive should include a consideration of the relative soundness of the brain that prompted it. Now that the fact is known that a slight change in the flow of blood to the head, or a little impoverishment or impairment of the vital current, is able to produce at least a temporary disorder of the mind, it becomes intelligent and humane men to inform themselves perfectly as to the physical conditions under which evil deeds are committed before a settled verdict is passed upon them. This obligation might seem to impose too arduous a burden of research in order to reach equitable conclusions; but it is quite as easy to elicit the truth regarding ancestry, bodily health, and habits of thought and action, as it is to secure the ordinary and superficial facts on which the judgments of mankind are usually based.

If then, this little work may be the means of exciting an interest in the profession upon this important subject, and at the same time, exert its influence in begetting in law and in society, a more humane and charitable feeling, not only

for those who are unequivocally insane, but also for those, none the less unfortunate ones, who inhabit the borderland between mental health and mental disease, my object will have been fully attained.

I desire to acknowledge my indebtedness to the following excellent works, which have assisted me in the preparation of these pages, and without which no physician's library is complete: "The Physiology and Pathology of the Mind," by H. Maudsley, M.D.; also "Responsibility in Mental Disease," and "Body and Mind," by the same author; "A Treatise on Diseases of the Nervous System," by William A. Hammond, M.D.; also "Insanity in its relations to Crime," by the same author; "A Treatise on the Medical Jurisprudence of Insanity," by I. Ray, M.D.; "The Borderlands of Insanity," by A. Wynter, M.D.; "A Manual of Psychological Medicine," by Drs. Bucknill and Tuke; "Mental Pathology," by W. Griessinger, M.D. No one can be more conscious than myself, of the many defects which undoubtedly characterize this book, and it is only with the hope that these may be charitably criticised, or kindly overlooked, that I allow them to go before the public.

A. C. C.

NEBRASKA CITY, *January 10th, 1876.*

INSANITY.

CHAPTER I.

INTRODUCTION.

The position of the medical man when called upon to testify in an obscure case of mental disease, though an unenviable one, is, nevertheless, one of the most important and honorable in which it is possible for him to be placed.

Even in this enlightened day there are those who sneer at the idea of calling a physician to decide the question of insanity. A person in order to be insane, in their estimation, must either be a raging maniac, or, at least, be laboring under an outrageous delusion. They know nothing of the secret workings of the human mind, either in health or disease, and too often think the physician makes crime an evidence of insanity, simply because they cannot appreciate the unseen evolutions of the mind.

The accumulation of knowledge on the subject of mental diseases by the physician, based upon careful observation and inductive inquiry, is fast exploding the absurd idea so long retained, that insanity is a subject of moral inquiry and not a physical disease. It is enough for the lawyers to diagnose the crime, and leave the diagnosis of the disease to those who know something about it.

The fact is now established that insanity is a bodily disease, and scientific men of the profession are now laboring to discover the particular bodily derangements associated with the various forms of mental disease. The more there is discovered in this direction, the nearer are we arriving at absolute truth, and the more necessary will be the physician's opinion, for the reason that he will then be dealing with something entirely beyond the comprehension of those who have not made the subject a special study.

Then, as now, it must be the first duty of the medical man to uphold the truth against error, even though he thereby becomes a target for the rash and unjust censures of an ignorant multitude. "A wretch foredoomed to insanity by mal-organization or hereditary defect," observes Connolly, "or driven mad by poverty, or by disappointment acting on a distempered brain, has no other friends in the world. The same courage which causes the physician to brave the dangers of pestilence should support him in this duty beneath the assaults of pestilential tongues and pens. Not the voice of the people calling for executions, nor the severities of the bench frowning down psychological truth, should shake his purpose as an inquirer and a witness. His business is to declare the truth. Society must deal with the truth as it pleases."

However, the courts are beginning to look with more favor upon the opinion of medical men, and are less inclined to be governed by obsolete and ill-established tests of responsibility. This fact is evinced by the position recently taken by two judges of the Supreme Court of New Hampshire. In the case of *Boardman vs. Woodman*, in which a will was disputed on the ground of insanity, the decision sustained by the full bench was rendered in accordance with the usual tests. Justice Doe dissented and maintained that "the question whether Miss B. had a mental disease was a question of fact for the jury, and not a question of law for the court. Whether delusion is a symptom or a test of any mental disease was also a question of fact; and the instructions to the jury were erroneous in assuming it to be a question of law. . . . The tests and symptoms of insanity are no more matters of law than are symptoms or tests of any other disease in animal or vegetable life. If a jury were instructed that certain manifestations were symptoms or tests of consumption, cholera, congestion or poison, a verdict rendered in accordance with such instructions would be set aside, not because they were not correct, but because the question of their correctness

was one of fact to be determined by the jury on evidence. Experts may testify to the conditions of mental disease as they could not if such indications were matters of law." Judge Doe further observes that legal tests of responsibility have always been derived from medical authorities, who profess to have founded their opinions on the observation of facts. They are virtually the dicta of medical men, of experts—conflicting and liable to grow obsolete; and, therefore, in passing judgment upon them, the courts actually trespass on the province of the expert. They change with the progress of knowledge. Tests and definitions of insanity once supposed to be correct and comprehensive, have given place to others regarded as representing the known facts of science. Whether they are correct or incorrect, current or obsolete, is a question not for the court, but for the expert to answer.

The same doctrine was repeated by Judge Doe in the case of *State vs. Pike*, in which he observes that "the legal profession, in profound ignorance of mental disease, assailed the superintendents of asylums, who knew all that was known on the subject, and to whom the world owes an incalculable debt, as visionary theorists and sentimental philosophers, attempting to overturn settled principles of law; whereas, in fact, the legal profession was invading the province of medicine, and attempting to install old exploded medical theories in the place of facts, established in the progress of scientific knowledge."

In the same case, Chief Justice Perley instructed the jury "that all symptoms and all tests of mental disease are purely matters of fact to be determined by the jury."

In commenting upon these cases, Dr. Ray observes that "against the course of these judges so strongly in harmony, as it is, with the established principles of law, it would be difficult to offer a satisfactory objection. However necessary the present practice may have been in former times, when juries were ignorant of the little that was known respecting insanity, and were obliged to rely on the

court for information, that necessity is now fully obviated by the services of counsel and the testimony of experts. If courts, instead of charging the jury to acquit the prisoner, if they find he was unable to distinguish right from wrong, or knew not that he was committing an unlawful act, etc., should merely direct them to acquit if they believe the criminal act to have been the offspring of disease, it can scarcely be questioned that much dissatisfaction would be avoided, while the requirements of justice would be fully answered. And this way of settling the question, obviates the objection suggested by the principle—that insanity, of whatever form or degree, does not absolve from the normal consequences of crime; because it will be observed, the prisoner is acquitted, not for the reason that he is insane, but that the criminal act is the offspring of disease."

From these observations of eminent professional men, and from the general drift of the important criminal cases of late occurrence, it is very evident that the value of the testimony of a medical expert in cases of criminal insanity will transcend those of the legal profession. Neither upon the old established commentaries of law, or upon the judiciary, or the counsel, will rest the question as to responsibility in mental disease, but to the expert alone will all these look for those matters of fact which, considered and duly weighed by the jury, are to acquit or convict the prisoner at the bar. With such a responsibility resting upon the medical profession, all will agree that more attention should be paid by them to the study of mental diseases, and to this end it is hoped, that this little work may be of some direct influence and benefit.

RULES FOR EXPERTS.

I will now give, in very brief form, a few rules for the guidance of the physician when called upon to testify as a medical expert:

1. He should, at the outset, have a well-ordered, well-digested, comprehensive knowledge of mental phenomena in a sound as well as an unsound state.

2. He should be entirely independent, not allowing himself to be too cordial with the counsel by whom he has been called and for whose purposes, it is expected that his testimony will be of value.

3. He should never, from a dread of being thought ignorant of his profession, permit to be drawn from him a positive and unqualified reply, when a modest doubt would better express the extent of his knowledge; neither should he ever give an opinion without mature consideration.

4. He should insist on having all questions clearly expressed, and never allow himself to answer a question he does not thoroughly comprehend.

5. Notwithstanding the authoritative demand for a *yes* or *no*, so adroitly used to embarrass the witness and discredit his testimony, he should qualify and explain his answers, so as to prevent any mistake as to their meaning.

6. He should not allow himself to be drawn out into giving an opinion on any supposed or imaginary case.

7. He should decline giving a positive opinion on one or two isolated symptoms or facts; such things, whatever they might signify when viewed in connection with one another, when singly considered, prove nothing respecting the mental condition.

8. He should be careful about giving a definition of insanity; it may be explained and described, but is not the proper object of a definition; at the same time, care should be exercised in allowing one's self to be drawn into any metaphysical discussion.

9. He should not allow himself to admit that all people are more or less insane, or all crime madness. A dividing line cannot be drawn that will be appreciable in all cases, so, for the individual case, science and experience must decide.

10. He should not judge of the credit of other witnesses, or the truth of their testimony, it is for the jury to decide upon this matter. If the jury are satisfied of the truth of the evidence, an opinion, based upon that evidence,

may be given ; but it should be borne in mind that it is the whole evidence upon which an opinion is to be founded ; and, if that evidence is contradictory or deficient, the witness will best consult his own reputation, and promote the ends of justice by candidly stating the fact.

CHAPTER II.

PATHOLOGY.

Insanity, unquestionably arises from a morbid action of the brain, and is only a symptom of disease of that organ. For this reason it is not a proper object for definition as a disease, nor is it possible to give the word insanity such a meaning as will cover all possible morbid cerebral manifestations, and yet not include those cases of brain disease which do not properly come under that head. According to Hammond, insanity "is a manifestation of disease of the brain, characterized by a general or partial derangement of one or more faculties of the mind, and, in which, while consciousness is not abolished, mental freedom is prevented, weakened or destroyed."

The brain is the seat of intelligence and volition, and constitutes the grand centre of the supreme nervous system. Receiving, as it does, from the sensitive columns of the spinal chord, and from the higher nerves of sense, the various impressions there created, it collects, associates and assimilates these impressions, and forthwith excites a corresponding action of the mental system, which operates upon every motor nervous ramification, and produces the varied actions of life. How these material impressions upon the nerve fibres and cells can be converted into an act of consciousness, is utterly incomprehensible.

The ganglionic nerve cells of the brain are supposed to be the centres of its functional activity, as much as are the ganglionic nerve cells of the motor system the centres of its functional activity ; and, if so, mind is simply a de-

veloped energy of nerve cell; but whatever be the real nature of the mind, it is most certainly dependent for its every manifestation on the brain and nervous system.

It is interesting to note the intimate physiological relationship existing between the brain and other portions of the nervous system, which inductively leads to the assumption that the latter plays no small part in the creation of cerebral manifestations, and that they hold within themselves, an important element of mental force.

In the lowest forms of animal life, no nervous system exists, external impressions seemingly being received by peripheral molecules, and transferred, by reason of the homogeneity of its substance, from element to element, at last resulting in visible movement.

In the second higher order of animals, the substance is less homogenous, the molecular relations less intimate, and a rudimentary nervous system appears, consisting of a single nerve cell connecting two fibres, which serve as conductors, and giving rise to the simplest form of reflex action.

As we go still higher in animal life, the more heterogeneous becomes the body, and the more diffuse and complex the nervous system, until rudimentary organs of special sense appear, and, with them, a corresponding increase of ganglionic centres. Here the perception of external impressions is more varied and discriminating, partaking less of reflex action and irritability, and more of that which is designated as sensory perception and sensori-motor reaction.

As yet, however, no trace of cerebral hemispheres is found, these first appearing in a rudimentary manner in the fish, gradually enlarging as we ascend to the mammalia, becoming nearly perfect in the higher mammalia, and fully developed in man.

As soon as these hemispheres appear, external impressions are passed from the sensory centres to the brain centres, which, in accordance with their special nature, give rise to *ideas*, forming another and higher type of sensibility which is known as ideational perception.

As we ascend in the mammalia, the hemispheres gradually enlarge backwards, and in the Ruminantia and Pachydermata slight traces of convolutions are found, which become more fully developed in the Carnivora, and complete in the apes and in man. The longer, more numerous and complicated are these convolutions, the greater will be the degree of intelligence, all other things being equal, and, as these cerebral developments gradually ascend, with a correspondingly gradual increase of intelligence from the Ruminantia to the highest type of animal life; so, too, do they ascend from the highest type of animal life to the lowest form of human life; and the same correspondence continues as we examine, in an ascending scale, intellectually, the different races of men as well as different men of the same race.

In addition to the above observations, it has also been demonstrated that the embryonic development of the human brain passes through similar stages to those through which the brains of other vertebrate embryos pass, and these transitory conditions in him are quite similar in form to those which are permanent in the lower animals, with a gradually corresponding ascent. It is easy to perceive, then, that, as Maudsley observes, "an arrest of development of the human brain may leave it very much in the condition of an animal brain; and it is found in some cases, as a matter of fact, that congenital idiots have brains very like those of the monkey."

Still further, it has been observed that there exists a specific difference in the constitution and functions of nerve cells, though to the eye, the latter often appear exactly alike; and the microscope has established the fact that there are structural differences between the nerve cells in man and those in the higher mammalia. It is very probable that these differences extend to both the cells of the sensory ganglia, and those of the higher nerve centres, and equally probable that they apply to the different groups of cells of the same system, and that each form of cell life has its

specific function to perform in cerebral manifestations. It is only by the acceptance and application of these physiological facts that we may safely proceed to investigate the pathological conditions of mental force, and hold true ideas as to the relations existing between the mind and nervous system. What constitutes the mind, or the relations that it holds to the body, whether material or spiritual, can never be satisfactorily answered from a metaphysical rather than a physiological standpoint. We can only look upon intelligence and will, as the special functions of the brain, just the same as transmission and reflex action are the special functions of the nervous system, while the mind constitutes pre-eminently the sum of all cerebral states.

Scientific researches prove that the brain alone is the seat of all mental action, either normal or diseased, and the natural and acquired powers of the mental faculties depend upon the proficiency of development and structural quality of the brain; when the latter is deficient in organic development, there is a corresponding weakness of the intellect and will; or, when diseased, a perversion or morbid derangement of those faculties. Diseased mental action is always the product of a diseased brain, but a diseased brain does not always produce a diseased mental action, as is evinced by the frequency of those cases where there is a serious disorganization of the brain, without any disturbance of the mental function. The query for us, then, is what character of cerebral disease do we find in insanity?

To establish this fact from a pathological standpoint, is a matter of impossibility, as the character of the anatomical changes to be found differ so widely from each other, and are so thoroughly diffuse, that in this day, no anatomo-pathological basis for insanity can be afforded, as for other cerebral affections. In fact, it is often impossible to discover after death, any organic lesions of the brain whatever, and this is the reason that some deny that insanity is a material disease, and consider it to be an affection of the

immaterial principle. Yet we find that in diseases of other organs, pathological changes are also often absent, though the presence of actual disease in these cases is not questioned. Because no pathological changes are found, is no sign that nerve element does not subserve mental function. We know comparatively nothing of the intimate constitution of nerve element, for the reason that it has so far baffled human investigation, yet, because we do not see the changes, we should not conclude that they have no existence.

Serious disintegration of nerve element may occur from various causes, without any discoverable pathological changes. For instance, as a result of excessive or prolonged mental exertion, the brain may become, for a time, entirely incapacitated for further function, but without any visible transformation of nerve substance, though an increase of phosphates in the urine testifies to its disintegration. The lightning's stroke may produce instant death, or leave its indelible mark in a shattered constitution and disordered nervous system, yet, in neither case, does the scalpel or microscope reveal any pathological change. So might we produce many other facts to prove that serious changes of nerve element do take place without any cognizable evidence, further than the accompanying modifications of nerve energy.

However, dissections are abundantly proving the fact that deviations from the healthy structure of the brain, are found in insane subjects, and when we remember the limited knowledge of brain anatomy possessed by pathologists in the past, we may safely conclude with Dr. Ray, that "the absence of these changes might be attributed, in not a few instances, to the fault of the inquirer rather than to the nature of the disease."

The instances in which morbid appearances in cases of insanity are not found, "are," observes Maudsley, "becoming less frequent, as investigation improves; and those who are best capable of judging, and best qualified by ac-

quirements to give an opinion, are those who are most certain of the invariable existence of organic change. It is known that when a morbid poison acts with its greatest intensity, there are fewer traces of organic alteration of structure found, than when the disorder has been of a milder character; and so likewise, organic change of nerve element in insanity, appreciable by the means of investigation which we now possess, may justly be expected, only when the degeneration has been extreme or long continued."

In insanity as in other diseases, irritation is the initial stage of disease, and constitutes the first link in a chain of events, of which disorganization and destruction are the last. During this stage of irritation, structural changes are wanting, and should death occur from any cause whatever, even though the functions were seriously, perhaps fatally deranged, before the outset of the subsequent stages, there could be found no pathological traces whatever. This stage of irritation, should it affect the physical forces but little, as is usually the case, may endure for years sufficiently strong to excite a morbid mental action, and still death results before any structural changes had occurred.*

The more we come to know of insanity in all its relations, the more it is robbed of its metaphysical aspect, and the more does it appear to us as a material disease, notwithstanding ignorance and superstition have ever succeeded in throwing around it an air of mystery. It observes the same pathological laws as other diseases, it follows the same course of incubation as other diseases,

* In the recent case of Joseph Waltz, described elsewhere, a *post-mortem* examination revealed no cerebral lesion whatever, and the learned doctors who assisted in procuring the verdict of guilty, felt their opinions to be thoroughly vindicated. It is hoped that discoveries will hereafter be made, so that insanity may always be detected by the scalpel and microscope, but that time is not yet; and Joseph Waltz was none the less insane for the reason that there were no pathological changes in the brain discovered.

sometimes approaching insiduously, at other times breaking out without any warning; its development presents nothing strikingly peculiar, as it merges into its most dangerous form; neither does its termination in death or resolution, either suddenly or gradually, present any remarkable features, different from the same in other diseases. Sometimes proceeding through successive stages to the end with increasing severity, or interrupted by intervals of a longer or shorter duration. These intervals or apyrexiae may either be remittent or intermittent. In the former, the mental excitement being only modified and less violent; in the latter, the patient seems entirely restored and possessed of a sound mind. It never arises from an immaterial or strikingly peculiar cause, but its etiology is analogous to that of other diseases, and may nearly always be discovered by a careful examination. These oft repeated observations, together with the fact that it often yields to a judicious medication and hygenization, and this also in proportion to the recency of the attack, gives positive evidence that insanity is a bodily disease, and in no way anomalous to established pathological principles.

PATHOLOGICAL CONDITIONS.

In briefly enumerating the results of pathological observations, it will be convenient to notice (1) those morbid products such as tumors, abscesses, cysticeri, etc., and (2) those direct results of morbid action which are, microscopically or otherwise, discoverable in the structure of the supreme centres.

1. There can be no question but that such morbid products as tumors, abscesses, etc., of the *brain substance*, more often occur without any symptoms of mental disturbance, but such is the case only from the fact that the supreme *nerve centres* are not implicated by the disease. When, however, these products become manifest in the *membranes*, rather than in the substance of the brain, the intelligence is more liable to become disordered, owing to the close proximity of the morbid action to the delicate

centres of intelligence, and its serious interference with their supply of blood. Nevertheless these morbid products in the brain substance are sometimes accompanied by symptoms of mental disturbance. In such cases the mental symptoms are usually of the character of an incoherent delirium, the like of which we do not meet in any of the recognized forms of insanity, or of mental imbecility, deepening into extreme dementia in the last stages, and are nearly always intermittent, so that they may disappear entirely from time to time.

These observations go to prove that there is no definite morbid action going on within the centres of intelligence, but that the mental disorder, instead of being a direct result of the disease, is but a secondary or reflex effect.

2. The direct results of morbid action in the brain do not admit of very definite description. It is a fact, however, pretty well established, that the morbid changes most often met with after insanity are such as affect the surface of the brain, and the membranes immediately covering it, and these changes are decidedly the most frequent in the cortical substance. That inflammation and other pathological conditions of these parts do sometimes exist without symptoms of mental disturbance, there can be no question; but it is very probable that in all such cases the cortical layers of the brain have escaped the disease.

The following general summary of the morbid appearances met with in cases of insanity, is furnished by Maudsley, as taken from Schröder van der Kolk, than whom there is no more eminent authority:

When the patient has died at the beginning of acute insanity, and the *pia mater* is stripped off, the cortical layer will exhibit unequal coloration; certain convolutions being rosy, others pale. The differences are often detectable only by careful observation; they are the results of great congestion, or commencing inflammation, and are found more often in those who have died of typhus fever, or after acute delirium, than in insanity, because death but seldom

occurs at an early stage. After a longer duration, the disease appears to pass into a chronic inflammation. There is some difficulty in stripping off the *pia mater*, the vessels of which are strongly injected, from the surface of the brain ; and portions of gray matter are sometimes brought away with it. More or less exudation commonly occurs between the arachnoid and the *pia mater*, and the former may form a thick, white, opaque layer, through which the convolutions are scarcely visible. After a still longer duration, when dementia is thoroughly established, there is no longer any increase of vascular injection. The vessels are less full than natural, and the *pia mater* may even, in some cases, be stripped off with more ease than in health, a clear serous fluid flowing away the while ; the gray substance appears pale or anæmic, and somewhat atrophied ; and the vessels especially at the base of the brain are beset with atheromatous patches. The degeneration extends into the ventricles, the lining membrane being thickened, and sometimes covered with fine granulations, and more or less fluid being effused into them. The membrane covering the *corpora striata* is most thickened, and cannot, as a rule, be stripped off without leaving the commonly softened nerve substance beneath ; this particular change being declared during life by paralytic symptoms, such as trembling of the lips, difficulty of articulation, and uncertain walk.

In addition to the foregoing morbid appearances, it is said that the weight and specific gravity of the brain is increased in the insane, but farther experiments are yet needed to render these observations certain. Microscopical examinations are fast adding to our knowledge of cerebral pathology, and it is to be hoped that the day is not far distant when a distinct pathological basis may be afforded for insanity, as for other diseases.

According to Maudsley, there are three principal stages in the degeneration process of cerebral disease : (1) a change in the vessels, hindering nutrition ; (2) atrophy of the nerve element, either from imperfect nutrition (*Rindfleisch*),

or from the growth of connective tissue (Rokitansky); and (3) the subsequent metamorphosis of the connective tissue. The same author enumerates the following different kinds of degeneration: (1) an early stage of *inflammatory degeneration*, or an acute hyperæmia, occurring in the most acute forms of insanity; (2) *connective tissue degeneration*, in which there is an increase of connective tissue, and an atrophy of the nerve elements; (3) *fatty degeneration*, either occurring in the smaller vessels of the brain, or in the proper nerve elements, or in the new morbid products; (4) *amyloid degeneration*, in which *corpora amylocea*, or little starch-like bodies, are found in great numbers in the brain; (5) *pigmentary degeneration*, met with in the ganglionic cells of the brain in senile atrophy; (6) *calcareous degeneration*, in which there is not only a calcification of some of the ganglionic cells of the brain, but also granules of earthy matter found in the hypertrophied connective tissue of long continued and extreme cases of insanity.

“Those who duly weigh the pathological import of these different sorts of degeneration, who reflect on the great gap which there is between a calcareous granule and a nerve cell in the economy of nature, or between a connective tissue corpuscle and a nerve cell in the histological scale, must be constrained to admit that the difference is not less great than the difference between dementia and sound mental action, and cannot venture to assert that the morbid appearances throw no light whatever on the nature of insanity. Even the slight signs of hyperæmia are of weighty significance if their true relations are recognized, if they are viewed as results and evidence of that degeneration of individual nerve element, of which the mental disorder is also result and evidence, if they and the insanity are viewed as, what they often are, concomitant effects of a common cause.”

As regards the pathological condition of other organs, as met with in the bodies of the insane, they are of so general a character, and never in any constant relation to any

particular form of insanity, that their study is of very little practical benefit, so far as they concern the morbid mental condition.

Diseases of the lungs are the most frequent local affections met with in the insane. Pneumonia, gangrene, and phthisis are of no uncommon occurrence, and tubercular deposition is said to be about twice as frequent in the insane as in the sane.

Diseases of the heart, stomach, liver, bowels, and peritoneum, as well as different forms of sexual disease, are of more or less frequent occurrence, but, as a general rule, there is no sort of connection traceable between the character of the insanity and the particular disease.

CHAPTER III.

CLASSIFICATION.

The classification of the various phases of insanity according to its pathology, as we classify other diseases, is at present a matter of impossibility, owing to the comparatively limited knowledge entertained of cerebral anatomy and pathology. We can only recognize the different groups of symptoms as such, and thus we may empirically establish a physiological and psychological basis of classification.

Various classifications have been made by different authors, based upon different plans to meet the individual views. The classification of Esquirol, though made some thirty-five years ago, is still quite popular, and in many respects is the best of its kind. It has the advantage of being based on symptomatology, rather than on any individual ideas of pathology, which are liable to prove erroneous. It is as follows:

I. *Melancholia*. Perversion of the understanding in regard to an object or a small number of objects, with the predominance of sadness and depression of mind.

2. *Monomania*. Perversion of understanding limited to a single object, or a small class of objects, with predominance of mental excitement.

3. *Mania*. A condition in which the perversion of understanding embraces all kinds of objects, and is attended with mental excitement.

4. *Dementia*. A condition in which those affected are incapable of reasoning, from the fact that the organs of thought have lost their energy, and the force necessary for performing their functions.

5. *Imbecility or Idiocy*. A condition in which the organs have never been sufficiently well conformed to permit those affected to reason correctly.

Dr. Maudsley divides Insanity into two great divisions: the one without delusions, (*Affective*), the other, with delusions, (*Ideational*). These, he sub-divides as follows:

I. AFFECTIVE OR PATHETIC INSANITY.

1. *Maniacal perversion of the affective life*. Mania sine delirio.

2. *Melancholic depression without delusion*. Simple melancholia.

3. *Moral alienation proper*. Approaching this, but not reaching the degree of positive insanity, is the insane temperament.

II. IDEATIONAL INSANITY.

1. *General*.

a. Mania.	}	Acute and chronic.
b. Melancholia.		

2. *Partial*.

a. Monomania.

b. Melancholia.

3. *Dementia*, primary and secondary.

4. *General Paralysis*.

5. *Idiocy*, including *Imbecility*.

The classification now generally adopted in Germany, is as follows :

I. CONDITIONS OF DEPRESSION.

1. Hypochondria. 2. Melancholia.

II. CONDITIONS OF EXALTATION.

1. Acute mania. 2. Monomania.

III. CONDITIONS OF MENTAL WEAKNESS.

1. Craziness or incoherence. 2. Dementia or fatuity.
3. Idiocy or cretinism.

IV. PARALYTIC DEMENTIA.

General paralysis of the insane.

The classification offered by Dr. Hammond is much simpler and more practical than any other I have seen. It is based upon the division of the elementary forces of the mind as adopted by him. These elementary forces are *Perception*, *Intellect*, *Emotion* and *Will*. So he gives us :

“ I. *Perceptual Insanity*, characterized by the tendency to the formation of erroneous perception, either from false impressions of real objects (illusions), or from no external excitation whatever (hallucinations).”

“ II. *Intellectual Insanity*, characterized by existence of delusions.”

“ III. *Emotional Insanity*, characterized by the uncontrolled or imperfectly controlled predominance of one or more of the emotions.”

“ IV. *Volitional Insanity*, in which there is an inability to exert the full will-power either affirmatively or negatively.”

“ V. *Mania*, characterized by the union of two or all four of these forms in the same individual.”

“ VI. *General Paralysis*, a peculiar form of insanity, attended with progressively advancing loss of mental and motor power.”

“VII. *Idiocy and Dementia*, the first due to the fact that there are original structural defects in the brain; the second resulting from the supervention of organic changes in a brain originally of normal power.”

In these forms of mental disease there is nearly always present one or more of the following important symptoms, the character of which must be thoroughly understood, viz.: Illusion, hallucination, delusion, incoherence and delirium.

ILLUSION.—An illusion is, according to Hammond, “a false perception of a real sensorial impression” The object which is presented to the consciousness not being perceived as it actually exists. A lady in one of the western asylums invariably imagines any cat she may see is a panther ready to spring upon her. This is an illusion of the sense of sight. There also exists illusions of the other senses—hearing, tasting, smelling and touching. Illusion is not pathognomonic of insanity, for it may be owing to either a temporary or permanent defective state of the organ or organs of sense, from a multitude of causes. When, however, it occurs in connection with other symptoms of cerebral disorder, its diagnostic value becomes important.

HALLUCINATION.—A hallucination is a perception of things which have no existence; the senses conveying to consciousness, as an object, that which is only a subjective process. While illusions are external impressions acting through the organs of sense upon the mind (eccentric), hallucinations are internal impressions acting directly upon the mind (centric), the organs of sense not being necessary to their existence. Hallucinations are almost invariably positive evidence of cerebral disorder.

DELUSION.—“Illusions and hallucinations,” observes Hammond, “may exist, and the individual be perfectly sensible that they are not realities. In such cases the intellect is not involved. But, if he accepts his false per-

ceptions as facts, his intellect participates, and he has delusions. A delusion is, therefore, a false belief. It may be based upon an illusion or a hallucination; may result from false reasoning in regard to real occurrences, or, be evolved out of the intellect spontaneously by the result of imperfect information, or, of an inability to weigh evidence, or to discriminate between the true and the false. * * * * Delusions are not a test of insanity, as most lawyers and many physicians would have us believe."

"A delusion to be indicative of insanity, must be such a belief as would not be entertained in the ordinary normal condition of the individual; must have been formed without such evidence as would have been necessary to convince in health, and must be held against such positive testimony as would in health have sufficed to eradicate it."

Some of the forms of insanity exist without delusions, and delusions certainly are of frequent occurrence in the same, so they cannot be considered as pathognomonic of insanity.

INCOHERENCE.—Incoherence is that condition in which the language is unconnected and incongruous. The words are not in proper relation to each other, neither do they agree with or depend upon the action of the mind. Incoherence is a prominent symptom of insanity, and is usually the result of a want of co-ordination of the functions of the mind.

DELIRIUM.—Delirium is a burst of tumultuous excitement, passion or enthusiasm, in which is mingled illusions, hallucinations, delusions and incoherence. It is most prominent in acute mania, but is present in a modified degree in chronic cases. The delirium of fevers, meningitis, etc., is readily distinguished from that of mania by the well-known peculiarity of the delirium itself, as well as by the physical symptoms present.

I. PERCEPTIONAL INSANITY.

This form of insanity is the most simple of any, consisting only of false perceptions, usually of the sight and

hearing. It is ordinarily premonitory of advancing cerebral disorder; but its illusions and hallucinations may be but the temporary result of intoxicating or narcotic substances, or indigestion, or derangement of the cerebral circulation, or may occur during the course of various other diseases. This form of insanity is amenable to treatment, but if not promptly arrested, may pass into a more serious type of mental disorder. It does not in any way lessen individual responsibility, and from a medico-legal point is only of interest in its relation to other forms of mental aberration.

II. INTELLECTUAL INSANITY.

Delusion is the characteristic feature of intellectual insanity. It is usually, but not invariably, preceded by perceptual insanity for a longer or shorter time, the illusions and hallucinations of the latter gradually becoming accepted as facts in the diseased mind. In cases where perceptual insanity does not precede the delusions, there are usually present certain prodromata, which, if recognized, would point to the forthcoming cerebral derangement. It is often the case that these prodromata are overlooked at the time, and only called to mind after the disease has become fully developed.

“Intellectual insanity is often uncomplicated by any other forms of mental derangement. There are no illusions or hallucinations, no overpowering influence of the emotions, and no loss of control over the will. Even when the delusion is of such a character as apparently to be connected with some one of the senses, and this to be based upon a false perception, full inquiry will often show that there is no error of the sensorial processes, centric or eccentric.”—*Hammond*.

Aside from those physical symptoms, which most frequently accompany this form of mental derangement, such as sleeplessness, indigestion, loss of appetite, etc., we find that the character of the delusion forms to a great extent the symptomatology of the case. These delusions are

usually of a painfully distressing character, though occasionally they are somewhat pleasing. More often they partake of the most horrid and terrific possibilities and experiences of life; in fact often transcend these entirely, and enter the region of the absolutely impossible. With such unceasing and perpetual torments, from which the unfortunate patient can never escape, it is not a matter of wonder that so many of them strive to end their own existence. It is more wonderful that, notwithstanding these extraordinary delusions, the mind does not lose its seat entirely and irretrievably; yet persons thus affected may go through life showing but little, if any, signs of mental derangement; converse intelligently on public affairs, science, literature or art; conduct their business and household affairs even, and not manifest their trouble unless the subject of their particular delusion be touched upon.

Delusions are, to a great extent, at the bottom of all the crimes committed by the insane. A person may be laboring under the delusion that a certain person is seeking to undermine his character or destroy his life, and that, as a matter of defense it is duty to take the life of his traducer or would-be murderer; or he may think certain ones are combining to overthrow the government, and that he is the one delegated to save his country by taking the life of one or more of the ring. The parent may entertain the delusion that an offended Deity demands of him the sacrifice of his loved children, and, in taking their lives, he is only fulfilling a Divine command. A case of this kind occurred under my own observation a few years since, where a mother of two fine girls, aged respectively two and four years, who had always evinced a sound mind, suddenly accepted the delusion that she must send the children to heaven, in order that they might be happy; and, to make their transit painless as possible, she roasted them on the kitchen stove. An ignorant judge and jury found her guilty of homicide, and gave her a term in the penitentiary, where she soon after died a raving maniac.

Persons who entertain such delusions as lead them to crime, and yet, who are so unfortunate as to evince no other signs of mental derangement, are very apt to become the victims of a fossil judiciary, a conceited prosecuting attorney and an ignorant jury.

III. EMOTIONAL INSANITY.

When the emotions are so aroused as to entirely overcome the intellect and will, so that the individual is incapable of restraining or governing his actions, he is said to have emotional insanity. In such cases, delusions are sometimes, but not always present. This form of insanity may arise from no apparent cause; may be the result of a temporary disturbance of the mental power, or may proceed from an insidious cerebral disorder, which will finally result in intellectual insanity.

Crimes are often committed during an attack of emotional insanity; particularly is suicide and homicide a common result of emotional disturbance.

“Many cases of what are called temporary insanity, mania-ephemera, transitory mania, and morbid impulse, are really instances of emotional insanity.

“The state with which transitory emotional insanity is most apt to be confounded, is that which has been designated as heat of passion. Passion is emotional activity. It refers to that mode of the mind in which certain impressions or emotions are felt, and which are accompanied by a tendency or impulse, often irresistible, to act in accordance with these impressions or emotions, irrespective of the intellect. An act performed in the heat of passion, is one prompted by an emotion which, for the moment, controls the will, the intellect not being called into action. It is an act, therefore, performed without reflection. The passions are, to a certain extent, under the control of the will, and this power of checking their manifestations is capable of being greatly increased by self-discipline. Some persons hold their passions in entire subjugation, others

are led away by slight emotional disturbances. The law recognizes the natural weakness of man in this respect, and wisely discriminates between acts done after due reflection and those committed in the midst of passional excitement.

“The acts performed during temporary emotional insanity, in their obvious aspects, and when viewed isolatedly, resemble those done in the heat of passion. But they are so only as regards the acts themselves. The act by itself can teach us nothing. We must look to the attending circumstances, and to the antecedents of the perpetrator for the facts which are to enlighten us as to the state of mind of the actor.”—*Hammond*.

An act committed during the height of an emotional paroxysm, may sometimes be entirely disregarded, though it is nearly always immediately preceded by symptoms of mental aberration; but this is not invariably the case; and when it is not the case, it becomes exceedingly difficult to satisfy a jury that the act was not done in the heat of passion. The subsequent state of the individual affords considerable aid. If the act be committed in the heat of passion, the act itself in its terrible reality sobers the perpetrator, and his first thought is for his own personal safety. If he be the victim of emotional insanity, he seldom seeks to escape, and seems indifferent to what he has done, or to the probabilities of punishment. Occasionally, such an individual may make a feeble effort to escape, but it is so very feeble that it is really a sign of mental derangement.

IV. VOLITIONAL INSANITY.

Dr. Hammond describes this form of mental disease to be solely an inability to exert the will in accordance with the intellect, and, if uncomplicated, there is no delusion or emotional disturbance. He says: “many cases of morbid impulse are instances of volitional insanity, in which an idea suddenly flashing across the mind is immediately carried

out by the individual, although his intellect and his emotions are strongly exerted against it. Thus a person who previously has not exhibited any very obvious symptoms of mental derangement—though a careful inquiry will invariably show that slight evidences of cerebral disease have been present for some days—instantaneously feels a morbid impulse to commit a murder or perpetrate some other criminal act, and is forced to yield, notwithstanding all the efforts he may make.”

Volitional insanity is a frequent complication with, or rather forms a part of intellectual or emotional insanity, mania, dementia, and general paralysis. Cases of kleptomania, dipsomania, pyromania, etc., are often only cases of volitional insanity, the will being unable to prevent the volitional act, though there be no inciting delusions or motives whatever.

V. MANIA.

In this form of insanity we have combined more or less of all those abnormal manifestations already referred to, such as illusions, hallucinations, delusions, emotional disturbances, loss of volitional power or control, and delirium. In the majority of cases, mania is preceded by symptoms of other mental affections, forming a series of prodromata which are of more importance in a criminal aspect than are those of established mania, from the fact that the matter of irresponsibility might be overlooked if a crime were committed during this state, but which is never the case in those suffering acute mania; and, moreover, in the latter the diagnosis is so plainly conformable that there need be but little danger of erring.

Usually, the prodromata of acute mania are of a melancholic character. They may be in no ways suspicious, and yet the individual is liable at any time to break out in a paroxysm of furious mania. He at first becomes aware of a very unpleasant, and yet indescribable condition of mind. He feels anxious, restless and uneasy; nothing

pleases him, and especially is he inclined to wander from place to place, hoping for relief. He soon complains of fullness in the head; he becomes exceedingly morose and irritable, and his ideas seem strangely confused. His digestive functions become deranged; his kidneys do not act properly; the circulation and nutrition are interfered with; he is not able to sleep at all; or, if he does catch a few moments sleep, it is filled with agitating dreams; illusions and hallucinations soon supervene; the countenance becomes altered; the pulse accelerated; the skin hot; the appetite deranged, usually voracious; the tongue coated; the bowels constipated; in women the menses are usually suppressed, and, in both sexes, there is usually an aggravation of the sexual desire. Soon the illusions and hallucinations are accepted as realities, and delusions exist. As the mania becomes fully pronounced, the physical symptoms disappear, and the patient expresses himself quite well; but there is now developed incoherent, rambling talk, laughing, singing, and the performance of the most ludicrous antics. The delusion is now firmly established, whatever it may be, and the patient seems to bend every thought in accordance with it. The mania soon assumes a more furious character, and there appears a constant tendency to acts of extreme violence. Even in this condition the patient exhibits the most surprising degree of cunning in the planning and execution of his purposes, which fact is abundantly illustrated in the many cases reported by our standard authors.

VI. GENERAL PARALYSIS.

General paralysis is a form of mental disorder with which there is associated a progressive paralysis, from which the name is derived. It is usually preceded for a time by a morbid condition of mind, which is principally manifested in a loss of confidence, and a distrust of the individual's own ability and usefulness. The mental powers gradually becoming weakened, have no control

over the moral sentiments and actions, which are often immoral and shamefully indecent. The patient becomes eccentric and whimsical to an astonishing degree, and finally delusions of an endless variety, and of the most extravagant nature supervene, and rapidly succeed each other. Simultaneous with these symptoms, or following closely in their train, there commences an insiduously advancing paralysis. This is first noticed in the indistinct articulation, from paralysis of the lips. The tongue is next affected, soon followed by paralysis of the facial muscles, presenting the ordinary symptoms of paralysis of these parts. The muscles of the eyes are next involved, and soon the muscles of the extremities. "Precise co-ordination of movements, such as is necessary for writing, sewing, and like acquired automatic acts, is lost. As the disease still advances, the articulation becomes less distinct, the walk more and more tottering, the knees fail, the patient frequently tumbles, and, finally, is unable to get up at all. The contractibility of muscles for the electric stimulus is retained. At last, the primary automatic or reflex movements fail, the pupils become dilated, but unequal in size; the sphincters lose their power, and the patient may be choked by a lump of food sticking in the pharynx, and blocking up the opening of the larynx, or even getting into the larynx. Transitory contractions of an arm or leg occur sometimes, and a grinding of the teeth is not uncommon in the last stages of the disease."—*Maudsley*. With this advancing paralysis, the decline of the mental powers keep pace, until the intellect is almost, if not totally destroyed, and death finally results from exhaustion.

During the course of this disease, there are distinct ameliorations and aggravations, the latter sometimes complicated with other forms of insanity, particularly acute mania; and it is during these complications that deeds of violence are most often perpetrated.

General paralysis is a disease of more than ordinary interest. Unlike other forms of mental affection, it selects

its victims mostly from the higher walks of life, confining itself almost exclusively to the male population, and scarcely ever occurring except between the ages of thirty and sixty. It seems to arise mostly from alcoholic or sexual excesses, or from severe and prolonged mental activity. Its duration is variable, lasting from a few months to three or four years, or even longer; but whether progressing fast or slow, it is ever downwards, and, in most cases, sooner or later death will ensue. A few cases of actual recovery are on record, but usually, when permanent recovery is supposed to have taken place, it proves to be only a temporary intermission, and soon again the disease is fully developed.

VII. IDIOCY AND IMBECILITY.

These are not properly derangements of the mind, but rather an absence or weakness of the mind. The former being either congenital, or arising during infancy, before the mental faculties have been fully developed, and may be a total absence of all the mental powers, or there may be displayed a slight semblance of intelligence. Imbecility is a weakness of the mind due to a defective mental development, not necessarily congenital. This defect is not such as would be due from a deficient education, but it is a natural mental incapacity, of which it may present degrees, passing insensibly on the one hand into idiocy, on the other hand into ordinary intelligence.

VIII. DEMENTIA.

Dementia is that condition presented after the mind has been destroyed by disease, and may be partial or complete.

Dr. Maudsley reports the case of a lady "who had suffered from an attack of acute insanity when only fifteen years old; the development of the mind seemed to have been completely arrested; twenty years afterwards she had quite the appearance, manner and mental character of a girl of fifteen; and though she had during that period

three more acute attacks of derangement, these resembled in character those that occur in early life rather than such as are usually met with in adults. Between this mild form of mental weakness at one end of the scale, and the extremest examples of dementia, in which mental power is almost obliterated, at the other end, there are met with in practice, cases marking every shade of the gradation."

Every sort of delusion may be present, and an endless variety of strange propensities exhibited. The individual may be surly, morose and depressed, or may exhibit the most exalted condition of mind, while others are at all times quiet and cheerful. It often happens that paroxysms of acute mania occur at intervals of a longer or shorter duration, and it is usually only at these periods that acts of violence are liable to be committed.

CHAPTER IV.

DIAGNOSIS.

There is no class of diseases so various in their manifestations as those known under the general term insanity, and their diagnosis is often established with the utmost difficulty, and only by the most persistent and careful examination. The diagnosis of other diseases usually depend, to a great extent, upon evidence afforded by physical signs—objective symptoms—but, in mental diseases, it is, for the most part, dependent upon evidence cognizable by the intellect alone. Its symptoms are seldom definite and unmistakable, and scarcely ever do we find directly palpable and physical signs. For this reason, it becomes necessary to consider all the accompanying circumstances, the hereditary predisposition, nervous constitution, cerebral injuries, dissipation, hysteria, chorea, etc., as predisposing causes, and disappointments, fright, intense excitement, and acute diseases, as most frequent exciting causes. In this regard,

it is often difficult to determine whether the morbid mental condition is the direct result of a diseased brain, or whether it is but the natural result of the existing predisposition. Dissipation may result in a morbid, demoralized mental condition, manifesting itself through immoral conduct, obscene language, blunted feelings and degraded desires. Sadness and depression of the mind may be the natural result of natural causes. Family bereavement, business losses, or indigestion, are sufficient to produce such conditions, yet, upon the removal of the existing cause, a reaction takes place, and the mind is normal. The continued presence of this predisposing cause, whatever it may be, may finally, through the continued irritation of the functions of the mind, or mental pain, result in cerebral disease, and the same symptoms in an aggravated form continue as the result of insanity. There is here a boundary line to be established between mental health and mental disease, the limits of which are at best vague and unsatisfactory. It is only by a practical knowledge gained by experience in the various forms and phases of insanity, that this most difficult task is to be accomplished. The physician, learned though he may be, and successful at the sick-bed, yet if he lack a power of practical observation in the management and treatment of the insane, he is almost as incompetent to the task as are the judges and lawyers themselves.

When called to examine a patient who is supposed to be insane, before proceeding to a personal examination, it is necessary to get a thorough history of the patient and his antecedents. This might be expected fully and candidly from the family of the patient, but the physician would be frequently disappointed. The dread entertained of insanity, and the false shame so prevalent in regard to this affection, may cause the members of the tainted family to systematically deceive, and to positively deny the slightest hereditary taint. It is best, however, to take all things as they are found, and listen attentively to the story that may be

told, and which may be all true. If, after so doing, the information of the family is not considered reliable, the physician should not hesitate to inquire prudently and cautiously of the neighbors and acquaintances of the family, in order to become thoroughly satisfied as to the hereditary predisposition and previous attacks, which are two most important diagnostic points.

The hereditary transmission of all forms of nervous disease, is an accepted fact, and though the child of an insane parent may never become absolutely insane, yet it possesses a neurotic temperament, and is more liable to an outbreak of insanity than would be a child of sane parents, under the same circumstances. The value of this hereditary influence increases with the amount of insanity occurring in the same line of relationship. The insanity of one parent is less predisposing than that of both parents, and the insanity of both parents less than that of one parent and an uncle or aunt in the same line, and still less if we add a grandparent on that side. The insanity of brothers and sisters may be usually considered as safe evidence of hereditary predisposition.

The hereditary predisposition to insanity varies in its modifications. Some children of insane parents bear continually through their lives the impress of insanity upon their countenances and habits of life, while others present no evidence whatever of the insane temperament until the disease is manifested, or they may pass through life untouched, but still leave to their progeny the decided mark of mental disease. The importance of hereditary transmission in mental disease must not, in justice to the insane criminal at least, be overlooked. It should be remembered, that there exists between all neuroses a most intimate relationship, and this is manifested in the oft-observed fact that children of insane parents are prone to attacks of epilepsy, chorea, paralysis and neuralgia. Insanity is a result of derangement of the mental nerve centres, and this derangement is liable to be transferred to the sensory or

motor nerve centres, giving an entirely new train of symptoms. Several cases are recorded in which there was an alternation between epilepsy and insanity, or chorea and insanity, the one giving place to the other at more or less regular intervals. Violent paroxysms of neuralgia have subsided at the outburst of mania, and again returned as the latter passed away. These observations not only show the kinship existing between insanity and nervous diseases, but robs the former of its metaphysical existence, and practically places it within the reach of scientific investigation and treatment. Mental diseases, of every form, having once occurred, are very liable to recur, and for this reason the existence of previous attacks is of great diagnostic value.

Besides the points already mentioned, the physician should inform himself respecting the habits, character and disposition of the patient. Many persons in good health are remarkable for peculiarities and idiosyncrasies of thought and action, different from those of mankind in general. On this account, the patient must be compared with himself, as he is when in a state of health, that it may be observed whether the present condition is an absolute change from the normal standard, or whether it is simply an aggravation, amounting, at best, only to what is termed eccentricity. True it is, that there is more or less connection between insanity and eccentricity. It has been observed, that in families where one or more of its members were insane, others of the family have been eccentric, and further, that eccentricity often culminates in insanity. Persons who are only insane on certain subjects, so-called monomaniacs, are often eccentric in their whole conduct, and it is said, after repeated recoveries from insanity, the individuals have remained eccentric during life. However, it cannot be held on this evidence, that such persons are insane, but only that, other things being equal, eccentricity involves a greater than usual susceptibility to mental derangement. If, without apparent cause for so doing,

the sober man becomes disappointed, the prudent man rash and extravagant, the moral or religious man dissolute, the modest woman shamefully indecent, there can be little question of the presence of cerebral disease ; yet, as previously remarked, search should be made for any predisposing causes that might operate in a natural way to produce these changes. They are but a lack of control over the affective and intellectual faculties, which are by nature depraved, and which depravity is only restrained by moral and religious principles. The question to decide is, whether that lack of will-power is the subject of disease or of natural causes.

It is necessary to conduct the personal examination of the patient with the greatest tact and discretion. It will not do for the physician to at once attack the citadel of disease by such leading questions as might not be inappropriate or unusual in other diseases. A few years since, I was the attending physician of a lady who exhibited marked symptoms of depression, and whose hereditary predisposition to mental disease was unquestionable. In the course of her treatment, an eminent physician of a neighboring city was called in consultation. Almost the first inquiry he made of the patient was: "Are you inclined to be melancholy?" The patient and family were through with him from that moment, and his superior abilities were ever after entirely ignored. The patient, as well as the family, is usually quite sensitive concerning any allusions to insanity ; and, if the former's suspicions are at once aroused, it will be quite difficult to discover his real mental condition. The physician may nearly always engage the attention and goodwill of the patient, if he will only employ that sympathy and tact derived from good sense and a knowledge of human nature, which is often appreciated as plainly by the diseased mind as by others.

In entering the presence of the patient, the physician should avoid a marked and obvious attention in his observations of the expression, demeanor, etc., but should as-

sume a quiet indifference, though it must be done in a natural manner, or the unfitting mask will at once excite the patient's suspicions. While, to all appearances indifferently conversing on the most foreign topics, the observing physician may study the physiognomy and gestures of the patient, and find in them much valuable aid ; the eccentricity of dress, from mere disorder to total nudity, or absurd peculiarities of arrangement in shape or color, so often present, may also assist him in forming an opinion as to the condition of mind ; but here, as elsewhere, no established rules or symptoms can be given. Each individual case must be studied by itself, and nothing but experience and a thorough comprehension of the peculiarities of diseased mental action will prove unfaltering aids. After the physician has, by ordinary conversation on any subject, tested the attention, memory and judgment, "the patient may be led to give an account of his own powers of body and mind, with reference to health, to exercise, diet and study. Thousands of delusions are entertained by insane people upon these subjects. He may then be led to converse respecting his possessions, his means of livelihood, and his hopes of advancement in rank or property. Such conversation will open up the delusions of pride, ambition and acquisitiveness. He may then be led to converse of his near relatives and friends, and especially respecting his birth and parentage, stress being laid upon his belief whether his parents were his actual and real parents. This inquiry will tend to open up any delusions respecting imaginary greatness, and any perverted emotions towards those who ought to be dear to him. The subject of religious opinion may then be introduced. The religious devotions and exercises which he practices may be inquired into, with the reasonable expectation of finding insane delusions on a subject which touches the deepest sentiments of the soul. If the patient is an educated man, it will be right to converse with him upon politics and science. If he can stand the test of a discriminating in-

quiry on these and similar subjects, he certainly cannot be the subject of mania; and if he has any delusions, he must either retain the power of hiding them, or they must exist in some obscure corner of the brain, from which they are little likely to influence, with any force, the opinions, the feelings, or the conduct.”—*Bucknill*.

It sometimes becomes necessary to distinguish between insanity and some other form of cerebral affection, which is usually a matter of but little trouble. The greatest difficulty will be found in those cases where an impostor attempts to simulate it, or a drunkard actually does so. “Certainly he must be a clever impostor,” observes Maudsley, “who can simulate the wild restless eye, the ceaseless movements, the quick fragmentary associations of ideas, and the volubility of utterance of acute mania, so as to deceive an experienced observer; nor can he, however skillful an actor, pass days without sleep, and even weeks with only a few hours’ sleep, maintaining a continual activity, as the acute maniac does. The skin in acute mania is dry and harsh, or cool and clammy; but the skin of a pretender, who tries to keep up a prolonged muscular agitation, will hardly fail to be hot and sweating. Chronic mania is most likely to be feigned, and if feigned with skill, the imposture may deceive many. However, this imposture generally ‘oversteps the modesty of nature,’ and overacts his part; he is extreme in the extravagance of what he does, while he falls short of his part in the emotional expression of the maniacal countenance. Thinking that a lunatic is widely different from a sane person, he exaggerates, and rants, and produces something not like a lunatic. He pretends, perhaps, that he cannot remember things, as what day follows another, or how many days there are in a week, that he cannot add the simplest figures together, and acts foolishly, and answers stupidly where a real lunatic, who was not an idiot, would act calmly and answer intelligently. If a suggestion be made incidentally of some symptom which he ought to exhibit,

he may adopt the hint. The history of the case, and especially of the mode of occurrence of the disease, and of the circumstance of its development, will most materially aid the diagnosis. If there be no previous history to be had, and if the patient refuse to converse, a long observation may be necessary to come to a decision. When a man feigns madness so perfectly as to deceive an experienced observer, we may hold, I think, that he is not far from being the character which he represents; for, unless there be a foundation of real madness beneath the feigned phenomena, there will be some want of coherence in them as a whole, and an incongruity with any known form of mental disease."

Ordinary intoxication is usually readily detected by the smell of the breath, the imperfect utterances at the outset, and the rapidly ensuing drowsiness and sleep. "Delirium tremens will be distinguished by its own characteristic symptoms—the muscular tremors, the peculiar fearful illusions and hallucinations, the cold skin, feeble pulse, and the white tremulous tongue. But there are cases in which positive insanity is produced by drink, and they are sometimes the occasion of great injustice being done by our legal tribunals. Certain persons who have a strong predisposition to insanity, or who have been once insane, or who have had a severe injury of the head at some time, do actually become truly maniacal for a while after an alcoholic debauch, or are rendered temporarily maniacal—being probably thought drunk—by a very little liquor. In this condition, vivid hallucinations are apt to arise, and the sufferer may perpetrate crime, not knowing afterwards what he has done, and certainly at the time not knowing the nature of the act."—*Maudsley*.

CHAPTER V.

CRIMINAL RESPONSIBILITY OF THE INSANE.

Throughout the whole system of man there is an intimate and inseparable relationship. The wonderful network

of nervous communication unites in harmony man's whole being, and, while the functions of the brain are specially connected with the mind, there is not an organ or tissue in the body that does not bear a direct influence upon that organ. Man, born with this higher principle of mind or soul, giving him intellect and reason, and placing him in the highest scale of animal creation, is destitute of many of those instinctive faculties which belong to the lower animal creation. The new-born animal instinctively knows where to seek its nourishment, and while the helpless babe would perish without assistance, the former will, without parental guide, and placed entirely away from others of its kind, grow up and develop into one of its own species, holding the same characteristic traits, performing the same feats, and living the same life of its ancestors. The babe only learns by the most patient induction. Its mental faculties are only formed and developed under a series of the most patient and continued education, and, as the child develops physically to manhood, the mind is gradually becoming formed, disciplined and perfected. The unfortunate one, who, from force of circumstances is deprived of all education, save that gathered from his own observations, grows up mentally undeveloped. The consequences, then, of a lack of education through successive generations, may be readily seen. The son of an intelligent and educated father, deprived of the same education, reaches manhood with an undeveloped mind. He transmits to his children a weaker mind than he originally possessed, and so on the degeneracy almost imperceptibly extends with each succeeding generation, until the functions of the brain are so dwarfed and perverted, that mind can scarcely be said to exist. Impulse and passion take the place of thought and will, and these, uncontrolled, naturally develop the evil propensities of man's sinful nature. Thus we see, that criminals are often born such ; destitute of all moral sense,

possessed of a mean defective intellect, they are true moral imbeciles.

In proportion with this congenital weakness of the mind, do we find, also, a physical degeneration, which may manifest itself in congenital deformity, scrofula or neurosis, but which, in every case, leaves the impress of a low physical and mental capacity upon the physiognomy, constituting a family likeness by which they are distinctively marked off from the balance of mankind.

With such, crime is the spontaneous outburst; the uncontrollable evil nature, over which presides an unsound mind, and for that reason, comes within the range of diseased action, and is itself a neurosis closely allied to epilepsy. However, notwithstanding this diversity of mind, the result of hereditary influence and education, the law-makers know nothing of individuals, but form and enforce laws based upon a uniform mental standard of their own establishing, which never did and never can exist. Mental responsibility can only be in proportion with the mental talent possessed, and laying entirely aside all diseased action, the uncultivated brain should not be subject to the same criterion of responsibility as that of the more highly favored. So, too, are the cerebral functions, when undeveloped and uneducated, more liable to some forms of disease. The weaker the elementary functions, the less able are they to resist the encroachments made upon them.

The power of education, quick as is its influence upon the growth of the intellect and formation of the character, is limited in its operations by the individual capacities. "No training in the world will avail to elicit grapes from thorns, or figs from thistles," observes a prominent writer, and this holds true of the mental powers which can never transcend the individual capabilities.

That there exists a definite line of demarkation between mental health and mental disease, is a matter of considerable question, but as the moral being gradually degenerates into the sinful, so does the sinful being fall still lower in

cerebral degeneracy until he passes the invisible line of transition, and is diseased. During this evolution, he occupies the border land between crime and insanity, "near one boundary of which," says Maudsley, "we meet with something of madness, but more of sin, and near the other boundary of which, something of sin, but more of madness. A just estimate of the moral responsibility of the unhappy people inhabiting this border land, will assuredly not be made until we get rid of the metaphysical measure of responsibility, and proceed by way of observation and induction to sound generalizations concerning the origin of the moral sentiments, the laws of their development, and the causes, course and varieties of moral degeneracy. Here, as in other departments of nature, our aim should be the discovery of natural laws by patient interrogation of nature, not the invention of theories, by invoking our own minds to utter oracles to us. It must be received as a scientific axiom, that there is no study to which the inductive method of research is not applicable ; any attempt to prohibit such research by authority of any kind, must be withstood and repelled with the utmost energy, as a deadly attack upon the fundamental principles of scientific inquiry. With a better knowledge of crime, we may not come to the practice of treating criminals as we now treat insane persons, but it is probable that we shall come to other and more tolerant sentiments, and that a less hostile feeling towards them, derived from a better knowledge of defective organization, will beget an indulgence at any rate towards all doubtful cases inhabiting the border land between insanity and crime ; in like manner as within living memory, the feelings of mankind in regard to the insane have been entirely revolutionized by an inductive method of study."

With the above view of the case, how absurd it is for law-makers to endeavor to establish any symptoms or tests of responsibility that will act as infallible guides in all cases. In fact, as we look back over the various and conflicting

tests of responsibility that have been conceived and abandoned during the past century, we cannot but admit that they are all unreliable, and that a real and positive test of responsibility—one that may be relied upon in every case, will never be established. The only just test is “the inability to control the action of the mind,” and properly speaking, this is no test at all, being only a matter of fact to be decided in each individual case.

It is not a great while since every person was responsible for crime in whom there remained the slightest trace of reason ; and if the truth were known, this theory is not entirely done away with in practice, though, perhaps, glossed over by the so-called tests of responsibility.

One of the most glaring absurdities of the undefinable notions heretofore prevalent in regard to insanity, and which occasionally crops out in these days, is the holding of persons not considered competent to attend to their business affairs, to dispose of property, execute wills, etc., as though in criminal respects they were of sufficiently sound mind, to be tried, convicted and executed for the commission of a crime under an insane delusion or impulse, which the unfortunate convict had not the power to resist, and for which he was not in the least morally responsible.

In the well-known case of Bellingham, the Attorney-General of England declared that “a man may be deranged in his mind, his intellect may be insufficient for enabling him to conduct the common affairs of life, such as disposing of his property, or judging of the claims which his respective relations have upon him ; and if he be so, the administration of the country will take his affairs into their management, and appoint to him trustees ; but at the same time, such a man is not discharged from his responsibility for criminal acts.”

Lord Erskine sanctioned this doctrine in his celebrated defense of Hadfield, for shooting at the King in Drury

Lane Theatre, in which he said: "I am bound to admit that there is a wide distinction between civil and criminal cases. If in the former a man appears, upon the evidence, to be *non compos mentis*, the law avoids his act, though it cannot be traced or connected with the morbid imagination, which constitutes his disease, and which may be extremely partial in its influence upon conduct; but to deliver a man from responsibility for crimes, above all, for crimes of great atrocity and wickedness, I am by no means prepared to apply this rule, however well established, when property only is concerned."

In a recent case (1860), Judge Bramwell in sentencing the prisoner, said: "that you are of unsound mind I believe, but that is no reason why you should not be punished. . . . I feel bound to sentence you to the same punishment as if you were sane." It is very true that the insane mind is not entirely deprived of all power of moral discernment and reason; that on certain subjects he displays a perfectly rational and well-balanced mind, but it is preposterous to suppose that a mind "when meditating a great crime is less under the influence of disease and enjoys a more sound and vigorous exercise of its powers" than when it is making a contract or will, where the conditions and consequences of the transaction require no great mental exertion in order to be comprehended; and where there is ordinarily nothing in it to deprive the mind of all the calmness and rationality of which it is capable. Criminal acts, though abstractedly wrong, may, under certain circumstances, become right and meritorious; and if the strongest and acutest minds have sometimes been perplexed on the point, what shall we say of the crazy and disturbed perceptions of him whose reason shares a divided empire with the propensities and passions? Most maniacs have a firm conviction that all they feel and think is true, just and reasonable; and nothing can shape their convictions.—(*Ray*.) The sane part of the mind may lead them to love perhaps fairly idolize family, and yet the insane part of

the mind commands them to sacrifice the lives of that family for some insane or delusive reason. As, for instance, the case reported by Mittermaier, when he enquired of a man in an asylum, who had killed his father, if he did not know that parricide is a crime severely punished. "I know it very well," he replied, "but God having sent me into the world to punish great sinners, of whom my father was one, I killed him according to the divine command." The madman may have the greatest horror and loathing of crime in the abstract, but at the same time the particular act of which they may be guilty have no connection in their minds with the same crime in the abstract, being led by their insane delusion to look upon the particular act as a duty which is not only right but meritorious. The capability of judging between right and wrong in the abstract, without reference to the conditions present in the particular case has nothing whatever to do with the question of responsibility. There must be present a power to discern correctly the good or bad intentions of others, and their actual identity, as well as an entire freedom from delusions, particularly those of a religious nature, which might produce a conviction of divine authority or command, and also consciousness of guilt and fear of punishment. The mind that does not correctly distinguish between friend and enemy, between benefits and injuries, that conceives everything to be the reverse of what it is, that allows self-constituted and false ideas of things to take the place of realities, is certainly not capable of judging between right and wrong in any particular case, even though he may claim the power of so-doing.

The individual must, therefore, not only have a general sense of right and wrong, but he must know that the particular act he is about to commit is wrong, and that he is doing wrong in committing it, and that he will be held morally and legally responsible for the act—to which should be added there must be an ability to control the impulses of the mind.

The individual may know the act to be contrary to law and yet think the peculiar circumstances justify him in disregarding the law. He may think it is legally as well as morally right to revenge some supposed defamation of character, or injury to fortune, by taking the life of the supposed enemy.

After the acquittal of McNaughton for the murder of Drummond, in 1843, on the plea of insanity, the House of Lords, evidently sympathizing with an ignorant and dissatisfied community in the acquittal under such charges of one who evinced no very obvious symptoms of insanity, propounded to the judge certain queries relative to the law upon the subject of insanity, for the purpose of establishing a standard of law, that would with justice operate the same in all cases, though the impossibility of such a thing has since been fully demonstrated.

One of these queries was, "If a person under an insane delusion as to existing facts, commits an offense in consequence thereof, is he thereby excused?" To this the judges replied that on the assumption "that he labors under partial delusion only, and is not in other respects insane, he must be considered in the same situation as to responsibility, as if the facts with respects to which the delusion exists were real. For example, if under the influence of delusion, he supposes another to be in the act of attempting to take away his life, and he kills that man, as he supposes, in self defense, he would be exempt from punishment. If his delusion was that the deceased had inflicted a serious injury to his character and fortune, and he killed him in revenge for such supposed injury, he would be liable to punishment." Here is presumed the absurd idea that the insane mind is capable of reasoning sanely upon its own insanity. Two of the judges who joined in the above reply practically admitted its wrong; Chief Justice Tindal having been the judge who approved of the acquittal of McNaughton for taking the life of Drummond because the former fancied that Drummond was one of the number

that were injuring his character, and destroying his peace, which, had such been real, would not have justified the crime of murder; Lord Denman, also, approved the acquittal of Oxford, who shot at the Queen because he supposed that killing the Queen was necessary in order to accomplish a certain great benefit to the public.

“Such a remarkable doctrine as this,” observed Ray, “can have sprung only from the most deplorable ignorance of the mental operations of the insane. If the insane person really believe that his neighbor is engaged in a conspiracy to take his life, he may anticipate the blow by killing him; but if he merely believes that the said neighbor has inflicted a serious injury on his character or fortune, the law will not hold him guiltless if he hurt a hair of his head. This is certainly very plain, and it must be the fault of the lunatic if he does not understand it. It is very reasonable too, *if insane men would but listen to reason.* . . .

If he fancies there is a design to take his life, he may take life; if he fancies that he is only insulted or railed at *he* may insult or rail in turn; if he fancies his neighbor is defrauding him, *he* may say hard things about him, (taking care to utter no matter libelous), or bring against him a suit at law. This is virtually saying to a man, ‘you are allowed to be insane;’ the disease is a visitation of Providence, and you cannot help it; but have a care how you manifest your insanity; there must be method in your madness. Having once adopted your delusion, all subsequent steps connected with it must be conformed to the strictest requirements of reason and propriety. If you are caught tripping in your logic; if in the disturbance of your mind and intellectual perceptions, you take a step for which a sane man would be punished, insanity will be no bar to your punishment. In short, having become fairly enveloped in the clouds of mental disorder, the law expects you will move as discreetly and circumspectly as if the undimmed light of reason were shining upon your path.”

In the case of *State v. Jones*, tried in the New Hampshire courts, Judge Ladd commented upon this doctrine of the English judges as follows:

"The doctrine thus promulgated as law has found its way into the text books, and has doubtless been largely received as the enunciation of a sound legal problem since that day. Yet it is probable that no ingenious student of the law has ever read it for the first time without being shocked by its exquisite inhumanity. It practically holds a man confessed to be insane, accountable for the exercise of the same reason, judgment, and controlling mental power that is required in perfect mental health. It is in effect saying to the jury, the prisoner was mad when he committed the act, but he did not use sufficient reason in his madness. He killed a man because, under an insane delusion, he falsely believed the man had done him a great wrong, which was giving rein to a motive of revenge, and the act is murder. If he had killed a man only because, under an insane delusion, he falsely believed the man would kill him if he did not do so, that would have been giving the rein to an instinct of self-preservation, and would not be crime. It is true in words the judges attempt to guard against a consequence so shocking as that a man may be punished for an act which is purely the offspring and product of insanity, by introducing the qualifying phrase, 'and is not in other respects insane.' That is, if insanity produces the false belief which is the prime cause of the act, but goes no further, then the accused is to be judged according to the character of motives, which are presumed to spring up out of that part of the mind which has not been reached or affected by the delusion or the disease. This is very refined. It *may be* that mental disease sometimes takes a shape to meet the provisions of this ingenious formula; or, if no such case has ever yet existed, it is doubtless within the scope of omnipotent power hereafter to strike with disease some human mind in such peculiar manner that the conditions will be fulfilled; and

when that is done, when it is certainly known that such a case has arisen, the rule may be applied without punishing a man for disease. . . . But it is a rule which can safely be applied in practice, that we are seeking; and to say that an act which grows wholly out of an insane belief that some great wrong has been inflicted, is at the same time produced by a spirit of revenge springing from some portion or corner of the mind that has not been reached by the disease, is laying down a pathological and psychological fact which no human intelligence can ever know to be true, and which if it were true, would not be *law*, but pure matter of fact. No such distinction ever can or ever will be drawn into practice; and the absurdity as well as inhumanity of the rule seems to me sufficiently apparent without further comment."

In the case of *State v. Wier*, tried a few years since in the New Hampshire courts, Chief Justice Bell instructed the jury as follows:

"The evidence must satisfy the jury that the party at the time of committing the act in question was insane, and that the disease is of such severity that the person is incapable of distinguishing between right and wrong in that particular case, and of controlling the sudden impulses of his own disordered mind; or, as the same rule has been laid down by an eminent judge, a person in order to be punishable by law, must have sufficient memory, intelligence, reason and will to enable him to distinguish between right and wrong in regard to the particular act about to be done, to know and understand that it will be wrong, and that he will deserve punishment by committing it, to which I add *sufficient mental power to control the sudden impulses of his own disordered mind*. . . . I have been accustomed to regard as the *distinguishing test* of insanity, *the inability to control the actions of a man's mind*."

Here is set forth the only comprehensive and just test of responsibility. In the language of Chief Justice Tevley in his instructions to the jury in *State v. Pike* (New Hamp-

shire) "if the killing was the offspring of mental disease in the defendant; that neither delusion or knowledge of right and wrong, nor design or cunning in planning and executing the killing, and in escaping or avoiding detection, nor ability to recognize acquaintance, or to labor, or to transact business or manage affairs, is, as a matter of law, a test of mental disease; but that all symptoms and all tests of mental disease are purely matters of fact to be determined by the jury."

From the illustrations given it would seem that American courts are rapidly progressing towards the truth in their dealings with criminal lunatics, certainly are they far in advance of those of any other country; however, as all people are not progressive, so all courts of justice are not progressive, and cling instinctively to the ignorance and barbarisms of past centuries. This is evinced in the case of *People v. Wright*, tried September, 1874, in the Nebraska court, in which Judge Gantt instructed the jury as follows:

"In order to excuse the act of the accused upon such defense, the proof must satisfy the jury that the deprivation of the understanding is *total, fixed and permanent*, or that he was laboring under adventitious insanity, and that during such frenzy there was total deprivation of understanding. It is a sound principle in the laws of social life, as well as in the enforcement of the criminal laws of all civilized and enlightened governments, that to excuse a man from punishment upon the ground of insanity, it must be proved distinctly and clearly that the accused was incapable of distinguishing right from wrong at the time he did the act, and did not know it was an offense against God and man. If there be only a partial degree of reason, sufficient to have restrained those passions which produced the crime; if there be thought and design, a faculty to discover the difference between moral good and evil, at the time the offense was committed, then the accused was responsible for his act. * * * It has been said by some learned

doctors in the medical profession, that if the man has the least taint of insanity entering into his mental structure, it discharges him from all responsibility to law. This is a monstrous doctrine, to which may be traced the fruitfulness of crime, and the immunity which have attended them in different parts of our country. * * * * * Did the accused act in the matter from thought and design, and understand right from wrong? Did he, by seeking concealment immediately after the perpetration of the act, manifest a rational mind, a consciousness that the act was wrong? If you shall find from the evidence, that these questions should be answered in the affirmative, then the defense of insanity must fail to constitute any excuse for the act of the accused.”*

Should there be a single reason leading to the commission of the crime, which is to our perception the offspring of insanity, even though to every appearance the mind is otherwise sound, yet this single delusion, or whatever it may be, renders the conscience imperfect, and we are left to decide by the best methods at our command, as to the extent of the perversion of the mental faculties by disease, and as to how far the apparently sane faculties sympathize with, and are weakened and overcome by those faculties which we know to be diseased. This extremely difficult task is not to be accomplished by establishing any criterion of right or wrong, or of legal responsibility of any nature whatever. It must in each individual case be made by the direct examination of scientific men, who have studied insanity as a disease, and not as a legal problem. Homicidal mania is often manifested as the direct result of a delusion, and in such cases, the unfortunate individual stands a better chance of having justice done by him, all allowing that the knowledge of right and wrong is destroyed by disease. But if this delusion does not ex-

* The above case was taken to the Supreme Court on writ of error, and the judgment of the court below reversed, the higher court holding the charge to be contrary to law.

ist, or if existing, it is not much manifest, and has not to all external appearances influenced the act, then it is held that he should be responsible. Even further does so-called justice go ; for, if the person has a most frightful delusion, but it cannot be known that the crime is a direct result of that delusion, then he must be responsible. With a delusion to prove in general a diseased mind, who can say there are not other delusions reigning concealed, and which have constituted the motive for the act? However, the great trouble is, that delusions as a mark of insanity, are greatly overestimated. On this point, Maudsley remarks, that “ not half the insane acts of a person laboring under general mania, are really the offspring of his delusions ; they represent the overflow of morbid energy, are often aimless and motiveless, so far as we can judge, the mere convulsive expressions of disordered nerve centres. Even the acts which are the offspring of delusion, are not such as are the logical outcome of it, or such as are adapted to the attainment of the delusive aim ; they are the results of insane reasonings from insane premises, or of impulses which spring up in insane minds without being connected with the existing delusions.” As an example for criticism, he supposes an individual to believe himself to be Jesus Christ, being otherwise entirely rational, but who one day, shoots somebody, and is put on trial for murder. The act cannot be shown to be the direct result of delusion ; nor if it were, it would hardly be in accordance with the character of Jesus Christ, to do murder, and as the madman must be consistent in his delusive character, therefore, he is righteously convicted and executed.

In no civilized country in the world would such a person be executed as a murderer, though such a theory is constantly held, and as a theory is always violated in practice. We cannot delve within the insane mind and follow its incoherent workings without first becoming insane ourselves ; for in this way only could we understand and appreciate its insane reasonings. “ The delusion is

not the disease," says Maudsley, "it is only the striking symptom of the disease, and it is certain that the criminal act may be the manifestation of the disease of which the delusion is a symptom, and that no connection between them may be detected by the looker-on, notwithstanding the existence of a real pathological condition." The courts of justice should not strive to trace a connection between the delusion and the crime, both of which are but symptoms of the same thing—disease; both being the effects of a common cause; but they should seek at once for a connection between the disease and the crime. The former being once established, criminal responsibility is at once annulled, for, "out of the depths of deranged feeling, in which the delusion is rooted, there may spring up at any moment insane impulses, which are quite independent of it, but which, like it, are born of the disease."

That form of insanity which develops a homicidal or suicidal mania, generally accompanies or follows melancholic depression. These crimes are often done by those who are just verging on insanity, but have not yet become actually deranged. The mind worn down by trouble, grief or anxiety, or perhaps by ill-health, becomes overwhelmed by fear and distress; sleepless and dejected, and filled with anxiety and despair in regard to health or business, the mental pain finally rises into a terrible and overwhelming emotion, in which state of frenzy, or more strictly, convulsion of the mind, a deed is committed which is immediately after realized by the perpetrator, in its most horrible aspect. In most of these cases, delusion has no bearing upon the act, but sometimes its presence is very evident, being usually of that form in which the person imagines himself to be continually persecuted; that he is surrounded by those who insult and abuse him, or who are trying to injure his health or take his life. Often delusions of this kind are present, but are cunningly concealed by him, so that he may the better engage an opportunity for wreaking out his vengeance. That an insane

person can for a long time simulate sanity, when it is to their interest to do so, there can be no doubt, and this fact is used as an argument that the same strength of will by which he thus controls his insane actions should make him fully responsible for the act which he so cunningly plans and consummates, knowing it all the time to be a crime. It must be realized that this is all the result of a diseased brain, and that it is not the individual's self that is operating through a healthy mind, but that it is the result of an indescribable feeling of anxiety and distress which leads to the planning of the act, which a sudden and uncontrollable explosion of morbid energy finally consummates. The terrors of the scaffold, or the horrors of eternity deter not from the crime, and strengthen not the diseased will.

It must be remembered, also, that persons who become insane, do not become rid of those passions which are common to all; on the contrary, these become intensified, and acts prompted by passionate motives, particularly those of revenge, are not of uncommon occurrence. This revenge may be for a real or an imagined injury; it makes no material difference. It is a madman taking a madman's revenge. We cannot see into the diseased mind, and measure in it the exact relations of health and disease, or discover the real intensity of morbid impulse, and the exact power of resistance, but admitting in some a limited responsibility, who will assume the power to draw in each case the dividing line, and give to each their proper limit? The only just plan is to give to each the benefit of a diseased mind, for who is able to say that in the least disease of mind, the whole mental functions do not sympathize, and are not in fact the product of disease?

In these cases there is often the "clearest evidence of premeditation in the plan and ingenuity in the execution of the deed. It is entirely consistent with insanity that the individual, knowing in the abstract the difference between right and wrong—nay more, knowing that he is doing

- wrong in the particular instance—should contrive the means of murder, do it deliberately, and endeavor to escape the consequences afterwards.”—*Maudsley*.

Wharton & Stille relate the following case, which is a striking example of the cool and daring cunning of insanity, and of the sense of responsibility that may accompany it :

“A man named John Billman, who had been sent to the Eastern Penitentiary of Pennsylvania for horse-stealing, murdered his keeper under circumstances of great brutality, and yet with so much ingenuity as to elude suspicions of his intentions and almost concealing his flight. He hung a noose on the outside of the small window which is in the door of the cells to enable persons on the outside to look in ; he then induced the keeper, in order to look at something in the floor directly at the foot of his door, to put his head entirely through ; the noose was then drawn, and but for an accident the man would have been strangled. Notwithstanding this attempt, the same keeper was inveigled into the cell alone a few days afterwards, on the pretense of Billman being sick, and was then killed by a blow on the head with a piece of washboard. Billman undressed him, changed clothes with him, placed him on the bed in such a position as to induce the general appearance of his being there himself, traversed in his assumed garb the corridor with an unconcerned air, addressed an apparently careless question to the gate-keeper, and sauntered listlessly down the street on which the gate opened. He was however soon caught, but his insanity was so indisputable that the prosecuting authorities, after having instituted a careful and skillful medical examination, became convinced of his irresponsibility, and united upon the trial in asking a verdict of acquittal on the ground of insanity. He was then remanded for confinement, under the Pennsylvania practice, and some time afterward, when in a communicative mood, disclosed the fact of his having several years back murdered his father

under circumstances which he detailed with great minuteness and zest. Inquiries were instituted, and it was found that he had told the truth. The father had been found strangled in his bed, the son had been arrested for the crime, but so artfully had he contrived the homicide that he had been acquitted by means of an alibi got up by means of a rapid ride at midnight, and a feigned sleep in a chamber, into which he had clambered by the window. Here was not only a sense of guilt, but a keen appreciation of the consequences of exposure, and an abundance of evidence of long harbored intention and intelligent design."

Dr. Hammond claims that "the individual who has sufficient intelligence to know that pointing a loaded pistol at a human being, cocking it, and pulling the trigger, are acts which will cause the death of the person against whom they are directed, should be subjected to the same punishment for a homicide as would be awarded for a like offense committed by a sane person." Certainly there would be no more premeditation or ingenuity of execution here than were exhibited in the case of Billman, whose insanity was never questioned.

The condition of the madman after committing a homicide is variable. Some seem completely insensible of the severity of the act, and do not realize in the least its criminal nature; others, on the contrary, display the keenest anguish and remorse; some make no attempt whatever at escape; others make more or less feeble attempts, while some, like Billman, succeed in adroitly eluding detection for many years. As has been before observed, there are forms of mental disease in which delusions of any character are entirely absent, and in which the general intelligence is, to all appearances, uncomplicated and normal. This condition is most marked in that form of disease previously described as volitional insanity, and which, on account of the entire absence of all physical manifestations, and the

impulsive character of its paroxysms, becomes a most dangerous form of mental disease. It consists in an insane impulse, acting upon a diseased mind, and which the latter has not the power to resist. This impulse is usually either of a suicidal or homicidal nature ; but it is those cases in which develop the latter form, that most frequently demand the attention of the expert.

It is surprising, how long a person possessed of a neurotic temperament may live and show no signs whatever of mental disease. He may become eminent in his profession or business of life, be remarkable for his acuteness of perception, and his ready tact in solving the intricate problems of business, and yet, either suddenly or gradually, the mental derangement may become manifest, the homicidal impulse may develop, swallowing up all reflection and will, and soon, without warning, the unfortunate individual stands before the world a homicide. To establish his insanity becomes a most difficult task, the previous workings of the mind having been entirely unknown, and disease not in the least suspected.

In those cases where there has been a previous homicidal impulse, where the individual may for months and years have been striving to overcome the horrible impulse, when it has truly had possession of him, in spite of all reason and will, making life a burden to him, then it must be acknowledged that the mind is diseased. At first he may have been able to control, or successfully resist the impulse, so long as it was simply an *idea*, but, as disease made headway, the idea became an irresistible impulse, over which reason and will had no dominion.

This homicidal impulse is not strikingly peculiar, only that in these cases it is the only appreciable symptom. There are no other symptoms or impulses of a different character, which serve to overshadow the homicidal impulse. There may be impulses to steal ; to break windows ; to tear clothes ; to swear, and do other acts of violence ; and if, during such a state, the homicidal impulse

should supervene, and a murder result, no one would question for a moment the perpetrator's insanity. Some form of impulsion is characteristic of insanity, yet we may not know the impulses that may arise from a diseased mind.

Maudsley aptly compares insanity with chorea, the latter being an insanity of the muscles. "Just as a deranged state of the motor centres destroys co-ordination of movements, and occasions spasmodic or convulsive muscular action, so a deranged state of the mind centres destroys the healthy condition of ideas, and occasions a spasmodic or convulsive mental action. In the one case the man is unable to perform his movements correctly; in the other case he is unable to perform his ideas correctly; in both cases they play him evil tricks, against his will, though within his consciousness."

Numerous cases exemplifying this form of mental disease, are reported by Pinel, Marc, Esquirol and others, but it will be sufficient here to give only two cases of more recent occurrence, as reported and commented upon by Maudsley. The first of these cases was that of Burton, "who was tried at the Maidstone Lent Assizes, in 1863, for murder. It was very simple and very shocking. The prisoner was a youth of eighteen years of age; his mother had been twice in a lunatic asylum, having been desponding, and having attempted suicide; his brother was of weak intellect, silly and peculiar. He, himself, was of low mental organization, and the person to whom he was apprenticed, and others, gave evidence that he was always strange, and not like other boys; he had a very vacant look, and when told to do anything, would run about, looking up to the sky as if he was a maniac, so that the indentures were cancelled. The prisoner said that he had felt an impulse to kill some one; that he had sharpened his knife for the purpose, and went out to find some one whom he might kill; that he followed a boy, who was the first person he saw, to a convenient place; that he knocked

him down, stuck him in the neck and throat, knelt upon his belly, grasped him by the neck, and squeezed till the blood came from his nose and mouth, and then trampled upon his face and neck until he was dead. He then washed his hands, and went quickly to a job which he had obtained. He knew the boy whom he had murdered, and had no ill feeling against him, 'only I had made up my mind to murder somebody;' he did it because he wished to be hanged. His counsel argued that this vehement desire to be hanged was the strongest proof of insanity; the counsel for the prosecution, on the other hand, urged that the fact of his having done murder in order to be hanged, showed clearly that he knew quite well the consequences of his act, and was, therefore, criminally responsible. He was found guilty, and Mr. Justice Wightman, in passing sentence, informed him that he had been 'found guilty of a more barbarous and inhuman murder than any which had come under my cognizance during a judicial experience of upwards of twenty years. It is stated,' the judge went on to say, 'that you labored under a morbid desire to die by the hands of justice, and for this purpose you committed the murder. This morbid desire to part with your own life, can hardly be called a delusion, and, indeed, the consciousness on your part that you could effect your purpose by designedly depriving another of life, shows that you were perfectly able to understand the nature and consequences of the act which you were committing, and that you knew it was a crime for which by law the penalty was capital. This was, in truth, a further, and I may say, a deeper aggravation of the crime!' When sentence of death had been passed, the prisoner, who during the trial had been the least concerned person in the court, said, with a smile: 'Thank you, my Lord,' and went down from the dock, followed by an audible murmur, and almost a cry of horror from a densely crowded audience. He was in due course executed, the terrible example having been thought necessary in order to deter others from doing murder out of a

morbid desire to indulge in the gratification of being hanged."

In this case, the individual's family history, his low mental organization, his previously acknowledged incapacity, and mental weakness, the character of the inciting motive, the extreme barbarous and horrible manner in which the deed was executed, as well as the total indifference of Burton during the trial, and his evident satisfaction with the sentence, show positively his insanity, and that he was entirely irresponsible for the act.

The case of the Alton murderer is an example of that class of cases, of by far more numerous occurrence than usually supposed, in which the insane impulse to homicide springs up suddenly without any apparent provocation. He was a clerk in a lawyer's office at Alton, New Hampshire. On a fine afternoon, he took a walk outside the town, when he met some little girls playing in a field by the roadside. One of them, a bright little girl, between eight and nine years of age, he persuaded to go with him into an adjoining hop garden, and the others he got rid of by giving them a few halfpennies. In a little while, he was met walking quietly home; he washed his hands in the river, on his way, and then returned to his work in the office. The little girl was missing; search was made in the hop garden, and the dismembered fragments of her body were found scattered about. Suspicion fell directly upon the prisoner, who was immediately arrested. In his desk was found a diary, in which was this newly made entry: "Killed a little girl; it was fine and hot." He had killed the child, and cut her body to pieces without other motive than the gratification of an impulse which suddenly came into his mind. There was no indication of insanity in his conversation and conduct after his arrest, nor was any evidence of strangeness in him immediately before the murder given at the trial. But it came out at the trial, where only the semblance of a defense was made, that his father had had an attack of acute mania. Moreover, it was

proved in evidence, that he himself had been unlike other people; that he had been prone to weep frequently without apparent reason; that he had exhibited singular caprices of conduct, and that it had been necessary at one time to watch him, from fear that he might commit suicide. He was found guilty, condemned to death, and in due course executed, all the newspapers heartily applauding. This man was plainly an instinctive criminal, if he were criminal at all; the impulsive character of the crime, the quiet and determined ferocity of it, the savage mutilations, his equanimity immediately afterwards, and his complete indifference to his fate—all these indicated an insane organization, ill-tempered, a discord in his nature, which, had it not issued as it did, would sooner or later have ended in suicide or unequivocal insanity.*

The case of Joseph Waltz, hung in New York a short time since, for the murder of one Halcher, a scissors grinder, was in many respects a very peculiar one. Dr. Gray, of Utica, and the State Commissioner of Lunacy insisted that Waltz was perfectly sane when he committed the murder, and remained so till his execution. Dr. Brown, of Bloomingdale Insane Asylum, and two other skillful physicians, emphatically pronounced him to have been insane. The subject caused an animated and earnest discussion among the medical men and newspapers of the State, the *New York Tribune* unhesitatingly declaring him insane, and his hanging a cruel murder. The facts in the case were remarkable. No possible motive for the deed could ever be discovered. When asked why he had mur-

* Very different was the opinion of Dr. Hammond upon this case. Although acknowledging the perpetrator's insanity, he unblushingly says that "such monsters of depravity should be slain upon the same principle as we slay wild and ferocious beasts." Such an inhuman and monstrous doctrine, emanating from such a source, cannot help retarding the progress of humane justice. It sounds strangely similar to the barbarous doctrines of past centuries, and is certainly quite unworthy of its distinguished and talented author.

dered the poor, inoffensive scissors grinder, he said it was "the spirits," blood-thirsty demons, whom he could not resist, although he had made desperate efforts to break away from their influence. On his arrest, he acknowledged his guilt, or rather his crime, for he seemed to have no feeling of guilt; described with horrid minuteness the manner in which the murder was committed, and showed the officer who arrested him where he had buried the body, although, if the body had not been found (as quite likely but for his pointing out its whereabouts, it would not have been), he could not have been punished. His accommodating desire to aid, so far as he was able, in solving the mystery of the tragedy, led him to aid in the one discovery essential to his conviction and execution. After his conviction and confinement in a cell, his ferocity increased. He made further confessions of crime, not from persistence, but apparently from a satisfaction in seeing people startled by his enormities. He caps the climax of his bloody career by beating in the skull of his keeper, so that he died in two or three days. When the act is discovered by the sheriff, Waltz makes no attempt to escape, no effort at resistance, although he has in his hands the loaded revolver of the man he has just slain. To the importunities of his sister, to seek God's forgiveness for his crimes, he only responds with a glare and a growl like those of a wild beast; and he springs like a tiger towards the mother who bore him, to strangle her. In this mood he goes to the gallows.

In this case, the prisoner's insanity could scarcely be called in question. In the minds of the most obtuse, there must have been grave doubts as to his sanity, to say the least, and with the "benefit of a doubt," always accorded a prisoner, it is impossible to conceive how an intelligent being could bring in a verdict of guilty of murder in the first degree, unless, perhaps, the advice of Dr. Hammond influenced their decision, and Waltz was "slain upon the same principle as we slay wild and ferocious beasts;" at

all events, the *New York Tribune* was fearfully correct in its opinion so boldly ventured.

From the foregoing observations, it would appear that the criminal responsibility of one who labors under this form of cerebral derangement, depends upon the justice of law in trying to make all persons control their wrong impulses, the insane equally with the sane. People often do not do so when it is within their power, and such should not be shielded ; but when the impulse is the offspring of disease, it is not for a human bar to decide that it could have been resisted. "Of course, it is the duty of every man to control an impulse to homicide, even though it spring from disease ; and it may, perhaps, without much violence, be assumed that every sane person would be likely to do so, seeing that there cannot be supposed to be any real gratification in murder, purely for its own sake, and in being hanged for it ; but to conclude in a particular case, that an impulse springing from disease might have been resisted, and was not, and, therefore, to hang the person, is to assume an insight which no mortal has, or can pretend to have, and to do under the sacred name of justice, a deed which may unquestionably be a fearful injustice."—*Maudsley*.

The criminal responsibility of the demented, imbecile or idiotic, is seldom a matter with which the medical man has to deal, and when such is the case, the same rules applied to other forms of mental disease will equally answer here. Occasionally crimes are committed by these persons, and when so, the responsibility is in proportion to the individual mental deficiency, and must be a matter of fact for the physician to determine, regardless of all set rules or so-called acts of responsibility.

In all cases where the intelligence is feeble, though not totally extinct, the passions are proportionately strong, and lead the individual to all kinds of acts of violence and crime, for which, in great part, he is irresponsible.

CHAPTER VI.

EPILEPTIC INSANITY.

The intimate relationship existing between the various *neuroses* has already been noticed. This intimacy is most marked in the epileptic *neuroses* which of all others is most directly related to that of insanity.

Epileptic insanity, strictly so-called, is that furious mania which so frequently follows an epileptic fit, or a succession of fits, or which occasionally precedes the fit, and which, on account of its extremely violent character, becomes a most dangerous form of mental derangement. Owing, however, to the fact that late observations have proven that attacks of mania are liable to occur in epileptics at any time, as also to the now well established relationship existing between the two forms of mental disease, it will not be amiss to briefly treat of epilepsy under the head of epileptic insanity.

Epilepsy may be divided into four stages, or rather four divisions, one or more of which are liable to be entirely absent.

The prodromata which precede almost every attack constitute the first division. The second division consists in what is usually described as the epileptic vertigo, or the *petit mal* of some writers, and constitutes the full extent of the slightest forms of epilepsy. The third division includes the more violent symptoms, corresponding to the regular epileptic convulsions, or the so-called *grand mal*. The fourth division is known as epileptic dementia, being the decay of the mind from epilepsy.

The prodromata of epilepsy are headache, dizziness, sparks before the eyes, or sudden blindness, noises in the ears, feeling as if the ears are stopped with water or cotton, bad smell in the nose, trembling, nausea, urging to evacuate the bladder or rectum, palpitation of the heart and chilliness. As the attacks increase in number and se-

verity, the patient's friends notice that previous to the paroxysm for several days, he becomes morose and irritable; or, his mind becomes clouded and he forgets everything and seems unusually confused and dull of comprehension. On the other hand exactly the reverse may be noted, in the patients extreme cheerfulness, loquacity and extraordinary self-esteem. Falret observes that in some cases the same ideas, the same recollections, or the same hallucinations recur before the attack; that on each occasion the patient has the same vivid mental impressions, or sees the same spectral illusions, or smells the same odors, or hears the same voice uttering the same words. In addition to these symptoms, epileptic paroxysms are sometimes preceded by the *aura epileptica*, which is a sensation as though air, either cool or warm, was passing quickly up the extremities to the head, but this is either of very rare occurrence, or else is of so short duration that it is not remembered by the patient when the attack is over. After a time these prodromata become so well known to the sufferer that if he is inclined to do violence during the attack he may warn his possible victim to get out of his way.

The second division of this disorder constitutes, as before stated, what is the lighter forms of epilepsy, the so-called *petit mal*, or as described by some authors, abortive or incomplete epilepsy. The patient "utters a few unintelligible words, or makes some incomprehensible sounds, or he may exhibit indications of profound terror, with or without grimaces, or other slight muscular spasms, and then is himself again, quite unconscious of what has happened him." These attacks usually recur several times in the course of a few hours or days. During the interval the patient seems completely restored, and talks and acts as if he were so, yet when the attacks have ceased, he remembers nothing that has occurred, not even the words he has said or the acts he has committed during the apparently lucid interval. If, however, the patient is closely watched during these intervals it will be observed that he

is unusually dull, his thoughts seem confused, he talks incoherently and acts strangely enough to indicate considerable deviation from a normal mental condition. It is quite obvious then that deeds of violence might be done by the individual while in this condition of temporary mental unsoundness for which he should not be held responsible. While it might be difficult to explain from either a pathological or metaphysical stand point this anomalous condition in which a person may be apparently living a natural life, transacting business and performing acts in an apparently normal manner, and yet be in a measure unconscious his existence or his surroundings, nevertheless the fact exists, and in justice to the suffering epileptics, should be constantly borne in mind.

During the more or less lengthy intervals occurring between the paroxysms, which may be several days, weeks, or even months, the patient's mind is at first apparently normal, but as the attacks recur from time to time, their effect upon the mind becomes more marked, and the person becomes sad and morose, easily irritated, cross and peevish; his intelligence becomes enfeebled, his memory impaired, his mind filled with suspicions of distrust and fears of all around him, creating a condition of most profound distress, anxiety, and terror, which may finally, in a desire to become rid of himself, or of those whom he blames for his trouble, culminate in a suicidal or homicidal impulse which he cannot control. Sometimes the deed being done, gives vent to the over-charged brain, and relief is at once afforded. If so, the patient at once realizes the enormity of the crime he has committed, and attempts to flee from justice, or, perfectly benumbed with terror and remorse, makes no effort to escape. In either case the individual's previous condition of mind not being known, or if known, not fully appreciated by either judge, jury, or community, he stands a strong chance of being hung.

The third form of epileptic mania is that class characterized by vivid illusions, hallucinations, delusions and

furious delirium, but lacking in a great measure the incoherence of ordinary mania. The attacks usually occur without any warning, though sometimes for a few hours previous to the attack there will be a noticeable sadness, irritability and nervous excitement, or the patient may complain of headache, the eyes be red and brilliant, and the face and limbs twitch. If prodromata once occur, the same may be safely expected to precede every subsequent attack; so, too, will the same terrifying objects meet their gaze, the same threatening voices fill their ears, and the same form of delirium characterize every paroxysm. The attack usually terminates suddenly in a few hours or days, and the patient remembers nothing of what has occurred.

The fourth division of epileptic mania is that which usually closes every case of protracted insanity, consisting in a general breaking down and entire destruction of the moral and intellectual faculties. During the progress of this degenerating process, outbursts of furious mania usually occur from time to time, during which, acts of extreme violence are liable to be perpetrated.

Between each of these divisions there exists an intermediate state, which exhibits every degree of variation, and which cannot be accurately described.

Epilepsy often exists unnoticed for a long time, either because it is too slight to attract the attention of unskilled observers, or the paroxysms may occur always in the night and no one be aware of their presence. It is probable that many cases of questionable insanity could be positively proven such, were more care used in the examination of the case, and the bringing to light of the epileptic neuroses.

Having thus briefly noted the usual symptomatic course of epilepsy, I will say something respecting its effect upon the mental powers, in the production of what may be described in a general term as epileptic insanity.

There still remains much to be learned of epilepsy in its medico-legal relations. The physician is scarcely ever led

to think of it except as a purely physical disease, and from a purely medical standpoint, while the lawyer, as a rule, only investigates it from a legal standpoint, where the interests of his client demand such an investigation, and then it cannot be said that his investigations are sufficiently careful and unselfish as to render his conclusions of any scientific value. Thus it happens that the medico-legal history of epilepsy still remains comparatively obscure, and our knowledge of it correspondingly defective. Nevertheless it is an accepted fact that some form of mental derangement is liable to accompany epilepsy, and that, as a general rule, the mind is most affected immediately before or immediately after the fit. Zacchias, in his day, contended that epileptics should not be responsible for any acts committed by them within three days of a fit, before or after, and while this principle is undoubtedly sound so far as it goes, it nevertheless establishes an arbitrary limit, which is, to say the least, unjust, and which scientific investigations do not fully confirm.

The more I come to know of epilepsy, the more am I convinced that in many instances the epileptic is never fully responsible; a temporary mental derangement being liable to occur subsequent to any mental excitement, from fear or anger, or any strong moral emotion, and during which a criminal act might be committed. The natural soundness of the mind is almost invariably destroyed where epilepsy has been present any length of time, and if this unsoundness in itself, is not sufficient to release from responsibility for crime, it would be difficult to establish any satisfactory and just limit of responsibility whatever.

The mania of epileptic insanity is of the most furious kind, partaking of a wild, blind frenzy, which nothing can tame; the individual automatically performing the most destructive acts of violence against both animate and inanimate objects, being apparently in a state of unconscious

ness. This condition may continue only a few minutes or hours, or may last several days, after which he becomes mild and sensible, though, in some instances, there remains a morbidly irritable condition of mind, which the slightest provocation aggravates. Sometimes this irritability is accompanied by a morose, surly, suspicious, jealous disposition of mind, full of unfounded fears, and quite often accompanied by a great activity of the lower propensities. In such cases, where the disease is fully developed and the conditions well known, there is little or no trouble in arriving at correct conclusions concerning the individual's mental condition; but to determine the exact mental condition of an epileptic at the moment of committing a criminal act, in whom the disease is not fully developed, or has not as yet produced this habitual mental derangement, is often a difficult task. "It may have taken place in the absence of any observer, in a fit of fury that rapidly passed away, and which, perhaps, may not have followed any previous paroxysm; or the accused, though subject to the disease, may not have recently suffered an attack, and may have appeared perfectly rational to those around him. The suspicion that the accused was deprived of his moral liberty, when committing the criminal act, would be strengthened if the paroxysms had been recently frequent and severe; if one had shortly preceded or succeeded the act; if he had been habitually subject to mental irritability, or other symptoms of nervous disorder; and by those circumstances generally which lead to the same conclusions, were the supposed disease a form of moral mania, instead of epilepsy. Cases of this kind should be closely scrutinized, and when the accused has been undeniably subject to epilepsy, he should have the benefit of every reasonable doubt that may arise respecting his sanity."—*Ray*.

It has also been ascertained that the condition of irritability which has been described as liable to follow an attack of maniacal fury, sometimes exists without the lat-

ter, and occurs periodically from time to time for months and even years before distinct epileptic fits appear; and still farther, that it not only sometimes precedes genuine epilepsy, but may also follow it, and occur periodically from time to time after the fits have entirely ceased. It thus constitutes a condition of profound moral or affective derangement, which is in reality an undeveloped epilepsy, and in which homicidal impulses are quite apt to occur.

There remains still another form of epileptic insanity, in which a homicide may be committed, which Dr. Maudsley describes as masked epilepsy, "a transitory mania occurring in lieu of the usual convulsions. Instead of the morbid influence affecting the motor centres and issuing in a paroxysm of convulsions, it fixes upon the mind centres and issues in a paroxysm of mania, which is, so to speak, an epilepsy of mind. Many cases of so-called transitory mania are really cases of this kind—cases of mental epilepsy. Both forms of mania may occur in the same patient at different times; his fits may be followed by mania, as is most often the case, or he may now and then have a maniacal, taking the place of an epileptic paroxysm. Thus, in one case of epilepsy, complicated with mania, there were three kinds of symptoms at different times: (1)—Epilepsy pure and simple; (2)—Epilepsy followed by violent delirium, chiefly of action, in which the patient tumbled about on the ground in an extraordinary manner, with great rapidity, without speaking a word; this condition, during which intelligence and sensibility were abolished, lasting for ten minutes; (3)—An attack of mania without epilepsy, the patient falling, after excitement, into almost an ecstatic state, from which he returned slowly to reason. Between these attacks he was quite sensible. The practical lesson which cases of this kind teach is, that in the event of homicide, we must not insist on its being proved in every case that actual convulsions had occurred; for the instance may be one of masked epilepsy."

Reference has already been made to that anomalous condition in which the epileptic may at times transact business and perform acts automatically, being entirely unconscious of his existence or his surroundings. A natural deduction is that crime might also be done while in such a condition, and for which the perpetrator would be wholly irresponsible. The difficulty lies in the fact that, as a rule, but little evidence can be had to prove such a condition, save from the perpetrator's own testimony, which, for obvious reasons, is not always to be relied upon.

However, the fact has been abundantly proven that such a condition may exist, and as this loss of consciousness is not far removed from the psychological impairments ordinarily attributed to epilepsy, the probabilities of its occurrence must be admitted, and the fact used to render us still more cautious how we estimate the legal responsibility of epileptics. The following case recorded by Dr. Ray is a very probable illustration of this condition, and is in other respects a case of considerable interest from a medico-legal standpoint:

In 1867, a young man, named Winnemore, was convicted of killing a woman, Mrs. Magilton, in Philadelphia. He was about twenty-seven years old, of a slim, spare habit, with an intelligent, ingenuous expression of countenance, and without a single aspersion on his moral character. He had been an epileptic from early youth, having had as many as forty fits in a single day, but of late years they had much diminished in frequency. For some months or years he had been much given to spiritual manifestations, as they are called. He saw spirits with the bodily eye, and roamed about at will in a region of spiritual beings. His life and conversation were more with them than with mortals of flesh and blood. Once or twice he attempted suicide. He had never been in any regular employment until he entered the army, from which he was discharged, two or three years previously, on account of his epilepsy. He had become intimate with the deceased by reason of

their common belief in spiritualism, and was in the habit of going to her house. To all appearances, their relations were of the most friendly character. On the day of her death, her husband, after an hour's absence from his house, about midday, returned home and was let in by Winne-more, who said that he had just come in and found Mrs. M. with her throat cut and quite dead. He denied to the very last that he had a hand in the murder, and though the circumstantial evidence was very strong against him, it was not conclusive. It certainly did not indicate the ordinary motives of crime. It did not appear that he had had a fit shortly before or after, and he admitted that he experienced no pain or other unusual sensations in his head on that day. He said that he was willing to die, and thought some great end would be accomplished by his death. The jury magnanimously found him guilty, and he soon after died on the gallows, a warning to all epileptics not to commit crime while in an unconscious or deranged state of mind.

On the whole it may be said, that, in any form of epilepsy, destructive impulses, particularly of a homicidal nature, are liable to occur, just as they occur in persons of a distinct insane neurosis, and just when they may occur, and under what particular circumstances, none can tell. The epileptic is ever liable to them, and, in cases of crime where premeditation and intelligible motive have been absent, and unnecessary violence and ferocity used in execution, and especially when, in connection with these circumstances, there seems to be a partial or complete loss of memory of the act itself, in such cases, the fact of epilepsy being proven, none ought, for a moment, to question the individual's irresponsibility.*

* Such a case in many respects was that of *People vs. David Montgomery*, (New York), in which most of the above named points were proven. However, Dr. Hammond testified that "though he was subject to epileptic convulsions and had a diseased brain, he was conscious at the time of the murder, and that the act was premedi-

However, the difficulty is usually in satisfactorily proving the presence of epilepsy in those cases mentioned in the second division as abortive or incomplete epilepsy, or in the third division, where the paroxysm is short, or where it has occurred in the night, so that no witnesses can swear to its actual presence.

CHAPTER VII.

TREATMENT OF THE INSANE.

One of the most difficult problems for the law makers to solve in the present day, is the character of punishment to mete out to those who, through the influence of mental disease, or, at least, who, during the existence of mental disease, are constrained to acts of violence and crime.

As we contemplate the barbarities and inhuman punishments inflicted upon the insane, for the most trifling offenses, in days long gone, we may not be surprised that notwithstanding the steady progress being made towards a more humane treatment, there should still exist legal doctrines upon this subject that are a disgrace to any civilized nation. How far such doctrines are due to the remains of ancient superstition, and to the idea that insanity

tated and deliberate." At the same time, Drs. Gray, of Utica, and Cook, of Canandaigua, testified to Montgomery's irresponsibility; nevertheless, he was convicted of murder in the first degree, and duly sentenced to be hanged. An application was made to the Supreme Court for a new trial, which was refused, but eighteen months elapsed before the final decision was reached. "By that time the epilepsy under which the prisoner undoubtedly suffered, had so far impaired his mind that it was deemed advisable to send him to the asylum for insane criminals at Auburn."

In this case Dr. Hammond took upon himself the responsibility of distinguishing the workings of the diseased brain, and of saying just when that diseased brain was operating healthfully or otherwise. Such insight is beyond mortal ken, and the acknowledged presence of disease places a fearful responsibility upon him who thus allows himself to be the cause of such a verdict.

is but a supernatural visitation of the Evil One, I am not able to say, but it is quite certain that true ideas of insanity, as a bodily disease, cannot fail to do away with the unjust and unholy horror which still hangs over the very term insanity, and, at the same time beget, for the poor sufferers, a more sympathizing feeling in the world at large, and a more just and humane treatment from the hands of the law.

Many insane criminals, if, indeed, they were criminals at all, have died upon the scaffold because the authorities did not seem to know what else to do with them. They were dangerous to society, and, as society must be protected, the extermination of insane criminals has, to a disgraceful extent, been the order of the day. The same thing done by heathen nations would incite in us a deep sense of horror and disgust, but in an enlightened country, where a farce like process of law is used to gloss over the heathenism of the crime we see fit to call capital punishment, we can look upon the execution of the insane without remorse, and read with satisfaction the applaudings of an ignorant and sensational press.

That society should be protected, no one will for a moment question, and this is supposed to be accomplished : (1) by punishing the offender to intimidate him from farther lawless acts, and (2) by the example this punishment affords to others who might be inclined to commit crime, but who are kept in check through fear of the law.

Lord Brougham first gave the opinion that it was necessary to punish insane criminals in order to deter them, and those who witnessed their punishment from farther mischief. Here, as elsewhere, the great men of the law act as if they considered the insane mind subject to reason, and nothing can be more absolutely unscientific, inhuman, illogical and absurd. No insane man will admit his insanity, even in his own mind, and, though he may witness the execution of an insane person for murder, it would not

deter him from murdering under the same circumstances, because he considers himself sane and his act justifiable.

"The absurdity of an insane person recognizing his own insanity," observes Dr. Ray, "forming rules for his conduct, and acting upon them, would seem too gross to be deliberately uttered by learned dignitaries of the law, had we not abundant proof to the contrary. In point of fact, it may be safely said that not an instance can be produced, of an insane person being deterred from the commission of a criminal act by the punishment of some other insane person for a similar act, or encouraged to commit it by an example of an opposite kind."

When crimes are committed under the influence of an irresistible impulse, which impulse is caused by disease, then either punishment or fear of punishment would have but little or no effect towards protecting society. Yet there is no question but that insane criminals should be deprived of their liberty, though not as a punishment for the deed they have committed, or rather for the deed which has been committed through them, and not by them, but purely for the protection of society, and for no other purpose.

Society has the power of protecting itself from this class of criminals without the aid of either scaffold or penitentiaries, if they are so inclined. In fact, insane persons should never be confined in ordinary prisons; not only because it is not justice to them, but because prison rules and associations are not such as would have a beneficial and salutary influence upon a diseased mind. On this point I am glad to agree with Dr. Hammond, who says, "there ought to be penitentiary asylums, in which insane criminals should be placed, and in which, while they are so securely kept as to render society safe from their propensities and weaknesses, their unfortunate conditions should come under such humane and scientific treatment as would be best calculated to afford amelioration and cure." At least it is simply inhuman and barbarous to say that a madman

should be hung in order to protect society, when society has the power of protecting itself effectually by other means.

Before closing this chapter it may not be inappropriate to notice briefly the treatment of those insane persons who have never become the perpetrators of criminal acts.

In no other direction is progress in the culture and practice of the humane virtues better exhibited than in the improved treatment of the insane. Until a very recent period, this unfortunate class of persons were almost universally neglected and shunned, and, to a great extent, abused and cruelly treated. In some countries they were regarded with reverence, as stricken by the direct hand of God; in others, they were regarded as proper subjects for the torment of coarse, unfeeling jest, ridicule, and derision; and, in others, they were imprisoned, as social pests, or even executed as criminals. The religious houses gave a partial refuge to lunatics during the medieval ages; and, when these were dissolved, hospitals, popularly called bedlams, were established for their reception. The management in these institutions was everywhere most deplorable, owing to the ignorance and the cruelty of keepers and physicians.

Asylums, properly so-called, were not brought into being before the beginning of the present century. Even in these improved infirmaries, the treatment of patients was for some time marked by the old and time-honored barbarity. The idea had so long been accepted, that, when reason departs from its seat in the mind, it leaves the human being a mere animal, oftentimes more furious and dangerous than the wild beast, it was hard to exchange it for newer and more intelligent conceptions. Devices of a diabolical nature were contrived, even after the dawn of our enlightened century, to subdue what was considered to be the evil demon raging within the breast of the insane. One of these was to entice the sufferers to walk across a floor that suddenly gave way and plunged them into a cistern of water, in which they were half-drowned and half-fright-

ened to death. Another was to chain them in wells, into which water was gradually admitted, subjecting the tormented creatures to the horror of watching the slow, sure approach of what they supposed to be inevitable death.

In the middle of the last century, a circular swing was much in favor as an instrument of discipline. To this, monomaniacal and melancholy patients were bound in a longitudinal position when the desire was to induce sleep, and in an erect position when intestinal action was required. The mere mention of this dreaded machine was enough to distract a patient who had once suffered its torture. Yet it was advised by one alienist physician of the day that the swing should be used in the dark in hopeless cases, with the accompaniment of frightful noises and smells.

However, such inhuman practices have rapidly disappeared during the present century, and the management of asylums, have, with a few noted exceptions, been conducted according to comparatively humane and scientific principles. Nevertheless, the practical results of the plans now in operation for the treatment of the insane are in many respects prejudicial to the true interests of the unfortunate sufferers. The crowding together of large numbers of insane persons, of different forms and shades of disease, under one roof, and restraining them there as prisoners, behind bolts and bars, to say nothing of the more or less constant cruelty of ignorant and inhuman keepers and attendants, cannot fail to deepen the seeds of disease, rather than to bring about a natural and healthy condition of the mental functions.

Three quite important elements are necessary to the successful treatment of insanity; First, no restraint; second, open air; third, association with healthy minds. Neither of these are attainable where hundreds—even thousands—of invalids are assembled under one roof, and the whole atmosphere is saturated with insanity. Ninety per cent. of the unhappy prisoners in our asylums are supposed to be incurable, and from 30 to 40 per cent. of these are

harmless and docile. It is an injury, as well as a cruelty to condemn the latter class to confinement. They should be restored to their friends when these are able to provide for them, and where there seems to be no special objections to so doing. Sometimes it is quite necessary to keep the patient removed from the midst of those circumstances under which his insanity was produced. In some cases there is "extreme difficulty in treating satisfactorily an insane person in his own house, amongst his own kindred, where he has been accustomed to exercise authority, or to exact attention, and where he continually finds new occasions for outbreaks of anger or fresh food for his delusion," (*Maudsley*.) A large majority of cases might be boarded two or three together, in private and responsible families. The cost of this mode of maintenance would be less than to support them as we do, in luxurious and expensive asylums.

Very little medical care is required in cases of chronic insanity; and the surest way in which comfort can be administered is through contact with healthy minds, and, when it is possible, by regular employment in the ordinary occupations of life.

To illustrate the benefits of such a system of treatment, I would refer to the famous infirmary for the insane at Gheel, Belgium, where for ages the open air treatment, as it is called, has been in successful practice. Here eleven hundred patients find homes among a sane population of about ten thousand. Only one building answering to an asylum has been erected in the town, and that but recently. It is capable of accommodating but sixty patients. In this patients are first received, and detained until the nature of their malady is determined. When decided that they need no special medical attention, they are distributed among the cottages and town and farm houses open to them. In six hundred different dwellings, lunatics form part of the household, and share, in so far as they are capable, the occupations and the amusements of the family.

The more docile patients are apportioned among the town houses, and the more violent in the cottages and farm houses on the borders of the community. Not more than three lunatics are domiciled under one roof, and generally not more than one. A strict supervision of the welfare of the patients is maintained. Ten physicians and guardians have charge of all the inmates of the community, and endless care is taken to secure gentle and judicious treatment for every one. The individual requirements of the lunatic are especially considered. Even the style of household and family arrangements is not thought too small a matter to take into account when the disposition of the lunatic is settled, (*Wynter*).

Each patient is constantly accompanied by an attendant ; but the latter is his companion rather than guardian, and the patient is never annoyed by a scarcely noticeable supervision. Trustworthy patients are often allowed to take walks, to sit at home, and to pursue various duties, guarded only by a child ; and no instance has ever occurred in Gheel of a child being harmed by his demented charge.

In Scotland, a system has been adopted for pauper patients that is somewhat similar to that of Gheel. Harmless lunatics are distributed among their friends or in licensed houses ; and the plan works well. The mortality among them is lower than among the insane poor in English asylums.

Dr. Wynter, a recent and able writer upon this subject, warmly advocates the adoption of this system of open air treatment everywhere, that asylums may be relieved of the throng of incurable patients that crowd their wards. By this arrangement, room would be made for the admission of acute cases that demand immediate medical treatment, yet are often compelled to stand so long without, knocking at the door, that the period of possible cure is passed, and they go to swell the army of hopeless lunatics.

I would not have it presumed that I favor the doing away entirely with asylums, or that I consider non-restraint

essential to all cases, under all circumstances. There are cases of a furious mania, and those in whom suicidal or homicidal impulses have occurred, in which restraint in a properly conducted asylum is quite essential, and, in fact, often absolutely necessary. A desirable end to be attained in the judicious combination of asylum and open air treatment, the one taking the place of the other, as circumstances and the welfare of the patient seem to demand.

In closing, I cannot do better than to quote from Dr. Maudsley on this subject, to whom I am already indebted for many of the most valuable ideas herein contained. He wisely says: "I cannot but think that future progress in the improvement of the treatment of the insane lies in the direction of lessening the sequestration and increasing the liberty of them. Many chronic insane, incurable and harmless, will be allowed to spend the remaining days of their sorrowful pilgrimage in private families, having the comforts of family life, and the priceless blessing of the utmost freedom that is compatible with their proper care. The one great impediment to this reform at present undoubtedly lies in the public ignorance, the unreasoning fear, and the selfish avoidance of insanity. When knowledge is gradually made to take the place of ignorance, and familiarity banishes the horror bred of ignorance, then will a kindly feeling of sympathy for the insane unite with a just recognition of their own interests, on the part of those who receive them into their houses, to secure for them proper accommodation and good treatment; then also will asylums, instead of being vast receptacles for the concealment and safe-keeping of lunacy, acquire more and more the character of hospitals for the insane; while those who superintend them, being able to give more time and attention to the scientific study of insanity, and to the means of its treatment, will no longer be open to the reproach of forgetting their character as physicians, and degenerating into mere house stewards, farmers or secretaries."

THE END.

INDEX

- Abortive or incomplete epilepsy, . . . 62
 Affective insanity, . . . 17
 Alton murderer, case of the, . . . 57
 Ancient treatment of insane, . . . 73
 Associations in treatment of insane, 74
 Asylums, first known, . . . 73
 Asylums, necessary, . . . 77
 Asylums, objections to, . . . 73

 Bell, Chief Justice, instructions to jury, . . . 46
 Bellingham, case of, . . . 40
 Billman, John, case of, . . . 52
 Boardman vs. Woodman, case of, . . 2
 Brain, physiology of, . . . 7
 Brain, development of, . . . 8
 Brain the seat of mental action, . . 9
 Bramwell, Judge, sentence, . . . 41
 Brougham, Lord, on punishment of insane, . . . 71
 Bucknill, on examination of insane, 34
 Burton, case of, . . . 55

 Classification of insanity, . . . 16
 Connolly, on duties of medical witness, . . . 2
 Criminal responsibility of the insane, . . . 36

 Definition of insanity, . . . 6
 Delirium, . . . 20
 Delusion, . . . 19
 Delusion, as characteristic of intellectual insanity, . . . 21
 Delusion, not always cause of insane acts, . . . 49
 Demented, responsibility of, . . . 60
 Dementia, . . . 17, 28
 Dementia of epilepsy, . . . 64
 Diagnosis, . . . 29
 Doe, Justice, on tests of insanity, . 2

 Eccentricity, . . . 32
 Education, influence of, on mind, . 37
 Emotional insanity, . . . 23
 Epilepsy, . . . 61
 Epilepsy, masked, . . . 67
 Epilepsy, medico-legal relations of, 64
 Epileptics, responsibility of, . . . 65
 Erskine, Lord, defense of Hadfield, 40
 Esquirol, classification of, . . . 16

 Examination of the insane, . . . 33
 Execution of the insane, . . . 71
 Experts, rules for, . . . 4

 Gaunt, Judge, instructions to jury, . 47
 General Paralysis, . . . 26
 German classification, . . . 18

 Hadfield, defense of, . . . 40
 Hallucination, . . . 19
 Hammond, classification of, . . . 18
 Hammond, definition of insanity, . . 6
 Hammond on emotional insanity, 23
 Hammond on penitentiary asylums, 72
 Hereditary transmission of insanity, . . . 31
 House of Lords, queries of, . . . 43

 Ideational insanity, . . . 17
 Idiots, responsibility of, . . . 60
 Idiocy, . . . 17, 28
 Illusion, . . . 19
 Imbecile, responsibility of, . . . 60
 Imbecility, . . . 17, 28
 Impulses, destructive, in epilepsy, 65
 Impulses in insanity, . . . 54
 Incoherence, . . . 20
 Infirmary at Ghent, Belgium, . . . 75
 Insanity a bodily disease, . . . 1
 Intellectual insanity, . . . 21
 Introduction, . . . 1
 Irritability in epilepsy, . . . 66

 Ladd, Judge, comments on English Judges, . . . 45

 Mania, . . . 17, 25
 Mania, transitoria, . . . 23
 Mania of epilepsy, . . . 65
 Magilton, Mrs., murder of, . . . 68
 Masked epilepsy, . . . 67
 Maudsley on borderland insanity, 39
 on cerebral degeneration, 14
 on classification, . . . 17
 on development of brain, 8
 on delusions, . . . 50
 on feigned insanity, . . . 35
 on insanity and chorea, 55
 on intoxication, diagnosis, 36
 on pathological changes, 11
 on treatment of the insane, 77



McNaughton, case of,	43	Ray, comments on decision of Eng-	
Melancholia,	16	lish Judges,	44
Mind, development of,	37	Ray, on pathological changes, . .	10
Mind, effects of hereditary influ-		Ray, on punishment of the insane, 72	
ences on,	37	Ray, on tests of insanity,	3
Mittermaier, case reported by, . .	42	Responsibility of the insane, . .	36
Monomania,	17	Responsibility, tests of,	40
		Rules for experts,	4
Nervous system, development of, in			
animals,	7	Schröder van der Kolk, on patho-	
New restraint in treatment of in-		logical changes,	13
sanity,	74	Scotland, treatment of the in-	
Open air treatment of insanity, . .	75	sane in,	76
Pathetic insanity,	17	State vs. Jones, case of,	45
Pathological conditions,	12	State vs. Pike, case of,	3, 47
Pathology of insanity,	10	State vs. Wier, case of,	46
Penitentiary asylums,	72	Symptoms of epilepsy,	67
People vs. Montgomery, case of, .	69	Tests of insanity,	2
People vs. Wright, case of,	47	Tests of responsibility,	40
Perceptual insanity,	20	Treatment of the insane,	70
Perley, Chief Justice, on tests of in-			
sanity,	3	Unconsciousness in epilepsy, . .	68
Perley, Chief Justice, instructions			
to jury,	46	Volitional insanity,	24
Physiology of the brain,	6	Waltz, Joseph, case of,	58
Prodromata of epilepsy,	61	Winnemore, case of,	68
Prodromata of mania,	25	Wynter, on open air treatment, .	76
Protection of society,	71		
Punishment of the insane,	73	Zacchias, on epilepsy,	65

ERRATA.

Page 11, line 17, for "outset," read "onset;" line 22, for "results," read "result;" page 15, line 11, for "amylocea," read "amylacea;" page 25, line 29, for "conformable," read "confirmable;" page 33, line 1, for "disappointed," read "dissipated;" page 38, line 10, for "outburst the," read "outburst of the;" also, line 27, for "quick," read "great;" page 46, line 36, for "Tevley," read "Perley;" page 49, line 1, for "much," read "made;" page 55, line 3, for "yet," read "and;" page 56, line 5, for "quickly," read "quietly;" page 58, line 17, for "Haleher," read "Huleher;" page 59, line 16, for "persistence," read "penitence;" page 60, line 32, for "aets," read "tests."

11
22

NATIONAL LIBRARY OF MEDICINE



NLM 00558309 0